



Proposal for

Chatham 911 Communication Services, Georgia RFI #19-0062 for CAD/RMS Software

June 28, 2019 5:00PM

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Friday, June 28, 2019

Ms. Peggy Joyner **Purchasing Director** Chatham County 1117 Eisenhower Drive Suite C Savannah, Georgia 31406

RE: REQUEST FOR INFORMATION CAD/RMS SYSTEM, Solicitation No. 19-0062

Dear Ms. Joyner:

CentralSquare (formerly TriTech Software Systems) is pleased to respond to the above-referenced Request for Information for Chatham County. Our comprehensive solution for the County consists of:

- CAD Enterprise: a high performance computer-aided dispatch system
- Mobile Enterprise: a mobile data system that extends the power of Inform CAD to field officers •
- Records Enterprise: a highly configurable web-enabled law enforcement records management • system
- Public Safety Analytics Enterprise: membership to the largest public safety database in the United • States

CentralSquare's solution will save Chatham County time, keep your officers and firefighters safer, and provide the field intelligence necessary to keep the County responsive to your community's public safety needs.

In September, CentralSquare Technologies was formed when TriTech, Superion, and Aptean's public administration business merged to create the largest company dedicated to serving the public sector. CentralSquare combines the public safety products of TriTech with the public administration products of Aptean and Superion, and we focus exclusively on the needs of public agencies and leverage technology to allow our clients to better serve the public. TriTech Software Systems remains a legal entity and there are no changes to the proposed products or services expected from this merger.

As the undisputed leading provider of public safety solutions, CentralSquare is confident our solution:

- Meets the requirements and goals stated within the RFI
- Provides the maximum integration of the County's public safety entities
- Includes exemplary 24x7 customer support
- Helps keep the officers, firefighters and citizens of Chatham County safer and more secure •

The following individuals are available to discuss the County's project in more detail:

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CentralSquare welcomes the opportunity to provide Chatham County with an on-site demonstration of our robust solution and we look forward to partnering with you in the success of this project.

Sincerely,

Sally A Obn Alden Sally Olson-Nelson

Senior Account Manager

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Non-Disclosure Statement

The terms and conditions contained in this proposal will automatically expire 180 days from the date of the proposal, unless renewed, extended, or terminated earlier by written notice from CentralSquare Technologies, LLC. Unless otherwise stated, taxes that may be applicable are not reflected and will need to be paid by the client.

Any modification pricing provided in this proposal is an estimate only. Detailed analysis of your specific requirements is needed prior to providing exact pricing.

If applicable, the prices for hardware and system software products and services are subject to change and are submitted for your information only. The terms and policies of the hardware vendor govern any portion of this proposal related to hardware and system software products and services.

If applicable, the prices and information on any third-party products and services are subject to change and are submitted for your information only. The terms and policies of any third-party vendor govern all portions of this proposal related to those products and services.

This proposal is protected by copyright law and contains proprietary information and confidential trade secrets belonging to CentralSquare. This proposal is furnished and accepted on the express condition that portions of it shall not be duplicated or disclosed, in whole or in part, except to your staff and agents when necessary for evaluation purposes, without prior written consent of CentralSquare. Those confidential portions include, but are not limited to, pricing and client lists. All such proprietary information is clearly marked for your convenience. Any portions of this proposal that are not marked proprietary or confidential shall be available for public disclosure.

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Executive Summary

Introduction

CentralSquare is pleased to provide this proposal in response to the Chatham County, Georgia (County) Request for Information for an integrated Commercial Off the Shelf (COTS) CAD/RMS system – Solicitation No.19-0062. Our end-to-end, integrated solution includes the requested application software, interfaces, and integration services necessary to support the goals and mission of the public safety agencies represented by the RFI.

CentralSquare recommends our Public Safety Suite Enterprise (powered by Inform) which includes current versions of our computer aided dispatch system - CentralSquare CAD Enterprise (powered by Inform), mobile data system and mobile app - CentralSquare Mobile Enterprise (powered by Inform), records management system - CentralSquare Records Enterprise (powered by Inform), and comprehensive reporting and analytics tools—Search and Crime/Fire Analytics of CentralSquare Analytics Enterprise (powered by Inform)—that will equip Chatham County with the latest technology and tools available.



CentralSquare's Georgia-specific Experience

CentralSquare has several implementations in the state of Georgia that are similar in size and scope as Chatham County. Chatham County, and the public safety agencies that you serve will certainly benefit from working closely with them.

We recognize the many state-specific requirements, as well as the unique needs of Georgia agencies, and CentralSquare takes pride in the focus we have given to the specific needs of our Georgia clients. The following are some of the Georgia agencies currently using or implementing the Public Safety Enterprise Solution:

- DeKalb County Police, Fire and Sheriff
- Hall County 911

- Gwinnett County Police, Fire and Sheriff
- Grady Health EMS

Georgia State Reporting System

CentralSquare is committed to providing software that enables users to accurately report incidents and enhance the gathering of usable statistical data. Working closely with the State of Georgia Criminal Justice Information Authority, we ensure that Records Enterprise supports efficient data entry consistent with the latest NIBRS reporting standards. CentralSquare's Georgia clients enjoy NIBRS-approved state reporting to ensure that official certification policies and procedures are met. CentralSquare maintains the state-specific forms and validation rules in our products as part of the annual maintenance agreement.



Project Objectives

CentralSquare understands that Chatham County has established this RFI with the goal of acquiring "a state-of-the-art, fully-integrated CAD, Mobile, RMS, Field Reporting, and a comprehensive reporting and analytics tools—Search and Crime/Fire Analytics application that will provide state-of-the-art functionality for both current and future needs." The following table details how CentralSquare's recommended solution addresses Chatham County's fundamental objectives and project goals for a modern CAD/RMS system.

Objective	CentralSquare Solution
Modernize your current data collection capabilities	CentralSquare understands Chatham County's desire to modernize the current data collection capabilities and recommends a system that will revolutionize your agencies' capabilities with a system that will take you into the future. The recommended CAD, Mobile, RMS, and Analytics system are state-of-the-art system with the details further elaborated on throughout this RFI.
Integrate disconnected systems	CentralSquare's recommended solution will integrate ancillary disconnected systems to aid in seamless transmission of data and – in some instances – replace some disconnected systems with our cohesive product line. CentralSquare has successfully delivered over 7,500 integration initiatives.
Improve upon its ability to share data	CentralSquare's objective is to eliminate repetitive data entry. Our solution's data sharing capability reduces entry errors and transitions users to an ease-of-use experience that will facilitate comprehensive use of the system throughout Chatham County.
Increase end-user efficiency	The recommended solution is designed and client-proven to be easy and intuitive.
Form a beneficial long-term partnership with a System provider	CentralSquare considers our clients our partners and values collaboration, communication, and customer service. We recognize Chatham County's commitment to this project is not only for today, but for the future. Chatham County's goal to select a vendor who can grow with the County's agencies, keeping them in the dynamic vanguard of public safety technology. CentralSquare's commitment is to work as Chatham County's partner to ensure the direction of our system product offerings are in alignment with the County. This partner commitment is strengthened through user groups (local and national), and round tables comprised of end users.

Solution Overview

CentralSquare proposes a state-of-the-art solution that meets current Chatham County requirements, provides tools for enhanced operations, and facilitates product upgrades in the future. The Public Safety Suite Enterprise offers applications for dispatchers, officers in the field, records clerks, and analytical reporting personnel. The seamless integration between the components of the Public Safety Suite Enterprise drastically reduces redundant tasks and all but eliminates the opportunity for error. Common fields transfer from one application to the next over the life of the incident with a single common case number. Dispatchers and field personnel have access to incident and person records and to National Crime Information Center (NCIC).



Records clerks share a common set of indices to track and consolidate people, locations, and property.

Our recommended solution features the following applications from the Public Safety Suite Enterprise:

- CAD Enterprise
 - CAD Enterprise Browser
- Mobile Enterprise
 - o Field Ops
- Records Enterprise
- Analytics Enterprise
 - Search
 - Crime Analytics
 - Fire Analytics

CAD Enterprise

The core software application within our suite of products is CAD Enterprise, a multi-agency, multi-jurisdictional application that is highly configurable, allowing police, fire, and EMS departments to configure the system to meet the specific business needs and workflow of their operations. CAD Enterprise leverages Microsoft SQL Server to create a comprehensive data management platform that meets the high demands of CAD Enterprise transaction processing and data management.

CAD Enterprise is GIS-centric, using native Esri data to ensure fast, accurate, visual unit routing and incident response time. The dispatch map display shows the current position of each AVL-equipped unit, hazards, premise locations and other layers. Unit position is updated and allows dispatch staff to quickly generate turn-by-turn routing instructions. The CAD Enterprise GIS system is a powerful search engine using extensive address search routines that have been field tested in communities with some of the most complicated addressing schemes in the world.

CAD Enterprise Browser

CAD Enterprise Browser provides remote users with a secure administrative or operational view of Chatham County's organization. This software has been designed to work in tandem with CAD Enterprise on a Microsoft Windows platform using a Web browser such as Internet Explorer, Chrome, or Firefox. Using CAD Enterprise Browser, users can query data through a local or wide area network (LAN/WAN) as well as through wireless connection, dedicated circuit or over the intranet/internet, receiving near real-time access to active and pending incidents, unit status, rostering, and messaging.

Mobile Enterprise

Mobile Enterprise extends the power of information to vehicle laptop computers through sophisticated, integrated mapping components and wireless communications. Officers can run NCIC and RMS queries, check email, or message other units, all while monitoring incident and unit updates from their vehicle. This equips officers with the information they need while in the field.



Mobile Enterprise architecture is based on .NET/XML technology to provide a highly maintainable configuration, as well as open and extensible integration to multiple disparate systems. The secure, wireless solution operates on a variety of wireless platforms, and provides secure Federal Information Processing Standard (FIPS) 140-2 compliant access to mission-critical information in the field. Fire and police field units can make on-scene decisions that enhance personal safety and improve operational efficiency through secure, real-time access to CAD Enterprise, Records Enterprise, and other public and proprietary databases.

Field Ops

The optional Field Ops mobile app extends the use of Mobile Enterprise to smart phones and tablets in the field. Designed for iOS and Android devices, Field Ops provides users the benefit of extreme mobility and constant access to CAD Enterprise to send and receive information. Field Ops allows users to view critical incident-related information, update their status, send messages, and perform other critical functions.

Records Enterprise

Records Enterprise is a multi-jurisdictional, functionally rich solution that seamlessly integrates records management, property and evidence management, accident report management, investigative case management, crime and trend analysis, statistical reporting, and other key functions, including UCR or NIBRS reporting to the State. Records Enterprise allows users to quickly locate information related to subjects or criminal activity through an intuitive and user-friendly interface; quickly capture and view subject and crime scene images and produce line-ups with minimal effort. Records Enterprise provides an additional layer of protection by notifying users of warnings or alerts associated with individuals, and warnings for outstanding warrants, civil papers, and stolen property.

Analytics Enterprise – Search

Search provides browser-based access by authorized users to information across all applications. The master indices provide a consolidated view of information on locations, persons, organizations, vehicles, and other entities. Administrative applications included within the Public Safety Suite Enterprise organize personnel, training, asset, fleet, and other agency data across the enterprise.

Analytics Enterprise – Crime Analytics

Crime Analytics is an advanced software solution that transforms mountains of data into actionable intelligence to better guide decisions. The system integrates with Records Enterprise to develop strategic maps, charts, and reports (Crime Analytics Advanced Reporting module) to support COMPSTAT, briefings, and missions. With Crime Analytics, command staff, managers, and officers can view criminal actions, analyze trends by crime type, "The benefit for the citizens in us using the system is that we will have more patrol out of the streets. It makes our agency more visible. We can show that we are in the field making sure that the community is safe."

Nequella Battle IT Manager Durham County NC Sheriff's Office

location, and time, and deploy resources at the right place and time to improve community safety.



Analytics Enterprise – Fire Analytics

Fire Analytics is an advanced software solution that transforms mountains of data into actionable intelligence to better guide decisions for Fire/EMS. Fire Analytics provides a framework through which command staff, station captains, and analysts can collaborate to examine, analyze, and author map-centric content or Measures for use by all levels of the organization. Measures can be created within the Designer Mode of FireView Dashboard which provides a set of analytical and mapping tools for command staff to work in partnership with analysts to create content reflecting department's priorities and outcomes.

Interfaces

CentralSquare's successful experience with more than 7,500 integration initiatives across the public safety spectrum is evident in virtually every CentralSquare project and includes:

- Innumerable local, regional, and statewide criminal justice exchanges, including National Data Exchange (N-DEx), Legal Information Exchange (LInX) and many others
- More than 50 operational CAD-to-CAD interfaces
- Standardized interfaces to dozens of third-party hardware and software systems
- An exhaustive library of configurable data publishers and data consumers

In addition to the comprehensive suite of applications proposed, CentralSquare's solution for Chatham County might include interfaces to, and integration with, many ancillary technologies. Extending our system to operate with the other systems in which the County has invested is one the many strengths of the CentralSquare solution. The inherent interoperability of the CentralSquare solution will provide Chatham County and your public safety agencies with increased efficiencies and streamlined data flow.

CentralSquare's solution might include interfaces to a variety of systems not currently identified in the RFI. CentralSquare has already created interfaces to many systems that the County might be interested in also integrating to. Records Enterprise is an open standards-based RMS solution that uses Microsoft SQL on the backend. This allows CentralSquare to use common standard- based approaches to interface with third-party systems. As one of the founding members of the IJIS institute, CentralSquare is committed to supporting a standards-based approach to integration today and in the future.

Our willingness to work with third-parties, partners, and competitors is a hallmark of CentralSquare's operations, and our commitment to supporting Chatham County 's integration needs. Some of these integration needs might be the following:

- Alphanumeric Paging
- E911 ANI/ALI
- NCIC/GCIC
- ePCR
- Fire Records Management
- LexisNexis Accident Reports
- LexisNexis Coplogic DORS
- MorphoTrak Livescan
- Pawn
- TraCS



Technology

CentralSquare's computing platform is designed to provide optimum performance, maximum availability, unsurpassed scalability, and centralized administration. CentralSquare has specifically selected premium components that will serve Chatham County for many years.

The CentralSquare solution includes proven hardware and commercial software technologies from industry icons such as Microsoft, VMware, Nutanix, and Mellanox.

CentralSquare has deployed our applications on virtualized systems using the VMware vSphere platform for more than five years. The beneficial characteristics of the VMware vSphere platform are many and include:

- Exceptional performance, reliability, and scalability
- Small footprint
- Robust infrastructure and application services
- Expansive resource management and allocation options
- Availability of vMotion, vStorage, vNetwork, and other virtualization extensions
- Simple deployment, administration, and operation capabilities

The High Availability (HA) features of VMware's vSphere are proposed to operate the Public Safety Suite Enterprise and other related business applications and silently manage the operation of all systems and resources to provide the availability required of mission-critical information systems such as those used by Chatham County.

The proposed CentralSquare solution is highly configurable and provides optimal reliability, exceptional performance, and maximum value. Our solution is designed to provide the most innovative applications in the most current server technology environment. CentralSquare applications are engineered to operate on any conventional or virtualized computer platform compliant with the Intel 64-bit architectures executing compatible editions and versions of Microsoft Windows operating system software and Microsoft SQL Server relational database management system software using the IP protocol suite.

The following table contains an overview of the proposed technology providers.

Pre	ovider	Application
Nu	ıtanix	Nutanix delivers an enterprise platform that natively converges compute, virtualization and storage into a resilient, software-defined solution with rich machine intelligence. The world's most advanced enterprise datacenters rely on Nutanix technology to power their mission-critical workloads at any scale.
Ме	ellanox	Mellanox Technologies is a leading supplier of end-to-end Ethernet and InfiniBand intelligent interconnect solutions and services for servers, storage, and hyper-converged infrastructure.
VM	Iware	VMware delivers powerful, proven virtual infrastructure solutions that enable government agencies and military installations to increase the efficiency and cost-effectiveness of their IT operations. Through the power of VMware software and virtualization solutions, governments can now centrally manage their computing, storage and network environments.



Services and Support

Chatham County will receive all the services required to implement and maintain CentralSquare's public safety software. Our project implementation methodology has proven to be successful in hundreds of public safety deployments and follows the Project Management Institute's (PMI's) guidelines for project management to deliver a high quality, cost-effective process that ensures successful implementation of the systems. Our training approach maximizes the use of hands-on training and students receive detailed instructions on a field-byfield, screen-by-screen basis.

The County will have software support services from our national Customer Service Center of Excellence where our knowledgeable, cross-trained staff can handle peak periods and serve as a backup to product line support teams that ensure uninterrupted support. Updates and version upgrades for Board-licensed CentralSquare software applications are provided as part of the annual software support and continuous upgrade fees.

Chatham County will have access to CentralSquare's Customer Service Center of Excellence website, which provides our clients with a comprehensive knowledge base, up-to-the-minute status on all service requests, and all CentralSquare software documentation, including user guides, white papers, and notices designed to enhance productivity with the Public Safety Suite Enterprise.

CentralSquare's Commitment

CentralSquare is proud of our deployments for some of the most complex and demanding public safety operations throughout the U.S. and across the globe. As an experienced public safety solution provider across the country and within Georgia, CentralSquare is uniquely positioned to provide the lowest risk, most cost-effective solution to Chatham County, having already successfully delivered systems meeting Georgia statute codes and state reporting requirements.

Our commitment to our clients means we will provide the products and services Chatham County needs to keep your communities safe. CentralSquare welcomes the opportunity to meet with Chatham County's project team to explore this solution in more detail and to collaborate on the most effective mix of products and services to meet the County's needs today and for many years to come.

"We're able to automate a process to save lives." John Garcia, Dispatcher, City of San Antonio



Section 1. CentralSquare Response to RFI No. 19-0062

Chatham County, Georgia is interested in obtaining information concerning an integrated Commercial Off the Shelf (COTS) CAD/RMS system. Chatham County is researching functionality, features and capabilities of modern CAD/RMS systems to develop and publish a Request for Proposal (RFP). All information is welcome including specific information concerning.

CentralSquare Technology's service and product offerings described in this RFI Response provide an integrated solution for an upgraded CAD/RMS System for Chatham County.

CAD/Mobile/RMS System Integration

CentralSquare Response:

The Public Safety Suite Enterprise integrates the workflow and aggregates the information across agencies, departments, and staff regardless of where users interact with the system. Integration extends from the 9-1-1 call through dispatch, response, reporting, arrest, incarceration, and data analysis. The intuitive user experience minimizes data re-entry and maximizes relevant informational awareness. The Public Safety Suite Enterprise provides the following key integration points across users, in the center, out to the field, and at the station:

- A common public safety database for searching and automatic notifications based on a user's request.
- The flow of CAD Enterprise Call for Service information to the mobile responder, officers in the field, records, and investigations.
- The sharing of user credentials in common environments like the vehicle. Mobile Enterprise and Records Enterprise allow the user to respond and report without having to re-enter credentials and user information.
- A common, Esri GIS source that feeds CAD Enterprise, Mobile Enterprise, and Records Enterprise users for location validation and map displays built for the task at hand.
- Access to a set of common Master Indices that include person, vehicle, location, and property that can be searched by dispatchers, responders, investigators, and analysts.
- The re-use of incident, person, location, vehicle, and property information that a user has entered in any part of the system without having to re-enter. This expands to allowing the re-use of data entered by other system users.
 - Secondary officer uses Person or Vehicle information queried by Primary officer in report
 - Officer uses location and incident information from CAD Enterprise to complete report
- A common user experience and system for 911 Enterprise and CAD Enterprise with a streamlined workflow, single keyboard and mouse, and common screens for entry.
 - Use of common geospatial tools to detect duplicate calls and incidents and alert the call takers
 - Common premise history and caution notes to enable immediate awareness before the call is answered



• A heads-up alert to Mobile Enterprise users from 911 Enterprise when a call starts ringing in the comm center originating from a location in the vicinity. A single data warehouse with powerful ad hoc reporting and dashboard-based analysis.

The Functionality of Each Major System (e.g., CAD, Mobile, GIS/Mapping, Law Enforcement RMS, etc.)

CentralSquare Response:

CentralSquare CAD Enterprise Product Overview

CentralSquare CAD Enterprise (powered by Inform) is a feature-rich, CAD solution for single or multi-agency operation. It bridges the communication gap between dispatch and the field and ensures the continual availability of data for immediate sharing of incident information, patient data, and criminal records. It provides a real-time link between agencies, with flexibility and user-friendly features that enable each agency to configure the system to meet their needs, yet jointly respond to events while retaining their individual requirements.**Hamilton County TN 911 Executive Director Video Testimonial**

https://video.centralsquare.com/watch/7rDs8cP2C36SUP1UKfM3NZ

CentralSquare Mobile Enterprise Product Overview

CentralSquare Mobile Enterprise (powered by Inform) extends the power of information to vehicle laptop computers through sophisticated, integrated mapping components, and wireless communications. Mobile Enterprise provides:

- Seamless CAD integration for voiceless dispatch
- Integrated mapping with navigation and GPS
- Extensive messaging with photo transfer capability
- Solid network connections for secure wireless updates
- Integrated query forms for CAD and local RMS records check
- Real-time incident updates
- Initial dispatch and automatic field-level incident updates
- Active and pending incident queues
- Unit status queue
- Integrated messaging
- CAD Enterprise-to-Mobile Enterprise
- Mobile Enterprise-to-CAD Enterprise
- Mobile Enterprise-to-Mobile Enterprise
- Mobile Enterprise-to-CAD Enterprise Browser
- Field-initiated incident creation and ability to self-assign to an incident
- On view, and incidents
- Automatic records check (traffic stop)
- Look up active or prior incidents
- Research unit activity
- Access to premise history, hazmat, and caution notes



"With the CentralSquare system, our officers get a lot more information, faster where we need it – in the field."

Doug Davidson, Officer, City of San Antonio

"We had a terrorist attack on a military base in Chattanooga in 2015 and because of our interconnected systems between our 911 center and all of our agencies and responders in the field, we had units on the scene within three minutes of the initial attack. The officers followed the shooter to a second military base where they were able to control the situation before any further loss of life. We were able to manage that entire operation very efficiently because we were all on the same system and could see unit locations and incident details and updates. If we had been on disparate systems without the ability to guickly and easily communicate, it would have gone a whole different way."

John Stuermer, Executive Director, Hamilton County TN 911 • The Mobile Enterprise architecture is based on .NET/XML technology to provide a highly maintainable customer specified configuration, as well as open and extensible integration to multiple dispersant systems. The secure, wireless solution operates on a variety of wireless platforms, and provides secure FIPS 140-2 compliant access to mission-critical information in the field. Field units have the ability to make mission-critical decisions that enhance personal safety and improve operational efficiency through secure, real-time access to CAD, RMS, and other public and proprietary databases.

CentralSquare Records Enterprise Product Overview

CentralSquare Records Enterprise (powered by Inform) is an integral part of CentralSquare enterprise-wide solutions, working in conjunction with the other CentralSquare applications to provide efficient and effective public safety automation. Records Enterprise includes robust, feature-packed modules covering the many facets of an agency's day-to-day operations. The Records Enterprise integration with CAD Enterprise allows telecommunicators to seamlessly transfer call data from CAD to Records Enterprise as well as create Incident Reports.

This model supports a built-in, cross-jurisdictional, data sharing environment that has become a critical component of successful policing strategies in today's environment.

Field Reporting capabilities of Records Enterprise give officers the ability to create, update, and submit reports easily and efficiently from the field or in the station. The system offers extensive configuration options that allow agencies to tailor the application to their needs and its inherent flexibility accommodates a wide range of environments, including workstations, MDTs, and tablets. The web user experience is designed to streamline the entire reporting process for Incident, Arrest, Field Interview, Citation, and Crash reports, from report writing through report approval.

The Data Entry Designer empowers agencies to design the system to suit their individual operational needs. The Data Entry Designer allows each agency to define data entry screen layouts, fields, labels, custom fields, default values, and required fields.

The Workflow Designer allows agencies to customize their workflows to meet specific agency needs for each report type and data entry screen. Workflows can include multiple levels of approval and send email notifications that can include read-only copies of in progress and completed reports.

The landing page consists of personalized queues that allow the user the flexibility to arrange, filter, and configure queues to meet their individual needs. The user can select the queues they are



interested in viewing on their landing page from the queue manager. The Report Administration queue allows supervisors to identify the location and status of any report that has not received final approval. Supervisors can preview, print, view comments, view attachments, and access report history from this queue.

The following Intelligent report entry features are available to streamline reporting and eliminate redundant data entry:

- **Recent Info**: Jump start report entry with recently entered information on people, events, locations, vehicles, and property from the CentralSquare Public Safety Suite Enterprise.
- At-A-Glance: 'As you type' visual indicators alert users to missing or invalid information.
- **Validation**: State-specific IBR/UCR, federal- and agency-defined validations can display as the user is entering data.
- **Master Indices Slide Out**: Populate reports with data entered in Records Enterprise Master Indices.
- **Comments**: Add comments to reports during the review and approval process. Comments are not part of the official report and are removed from the system upon final approval.
- Attachments: Add attachments (such as images) to be submitted with a report.

The report data is available in Records Enterprise once the report has completed the configured report workflow. A PDF image of the officer's report is stored in Records Enterprise with the case file and is available to view and print from the associated record.



CentralSquare Public Safety Analytics Enterprise Product Overview

"At Anoka County, MN I work the backend and do all the reporting for the 11 law and 16 fire agencies who are using CAD, Mobile and Records. We used to have to collect information from multiple sources. Now I have just one place to go for everything and I can access the data right away. It's helping us streamline our processes and if something works well for one agency, we can extend it to other."

George Jensen, Public Safety Data System Manager Anoka County, MN The CentralSquare Public Safety Analytics Enterprise (powered by Inform) is a hosted, cross-agency data sharing platform enabling participating agencies to build safer communities by sharing data across public safety agencies and jurisdictions, as well as with their citizens. CentralSquare customers make up the largest public safety software customer base in the nation, which will allow the County to use shared data to assist with investigations quickly and easily from any device. Analytics Enterprise includes the following functions: **State Searches**

By contributing to Analytics Enterprise, the County will receive State searches to access a national public safety centric database with a Google-like browser to search for records located within your agency's state. Built-in search algorithms are designed specifically for public safety, helping the County's personnel find people, places, words, phrases, values, alias spellings,

word expansion, nicknames, and synonyms. Through State searches, agencies gain access to search Law Enforcement interactions across

jurisdiction and geographic lines, adding layers to the story that are not readily available. Dispatchers have more information available to relay to patrol. Officers are better informed of situations they are entering. Investigators can dig deeper into a case—all through the real-time, interconnected access provided by the Analytics Enterprise program. What if an agency could see connections in behavioral trends in their data before they showed up in the news? Analytics Enterprise makes this possible.

Crime Mapping

Analytics Enterprise enhances community transparency by providing public access to CrimeMapping; agencies can select which generalized crime data to release to protect victims "Instead of spending time making maps, we get more information into their hands," said Crime Analyst Dona Reitenbach. The information is used for briefings at each shift change, and it's available to all deputies on the laptops in their patrol cars. The software is user-friendly, Reitenbach said, and can be filtered to show different types of incidents, within however large or small an area users want to see.

Dona Reitenbach, Crime Analyst, Charlotte County, FL Sheriff's Office

and ongoing investigations. Sharing crime data through this user-friendly interface engages your citizens to participate in safer communities and helps gain their trust.



Modules of Each Major Application

CentralSquare Response:

CAD Enterprise Standard Features

Standard Feature	Description
System Information Windows	
Main Window	The CAD Enterprise Main Window consists of numerous functions that can be arranged in a variety of ways to ensure fast, effective dispatch. Users can access the different modules and a count of pending messages using the mouse.
Advisor	CAD Enterprise Advisor functions as the CAD operator's information assistant by examining relevant operational events and providing an organized visual and optional audible display for those events. The System Administrator can configure CAD Enterprise Advisor to notify the user about important system events and offers a default action the user can choose to execute. The System Administrator can also configure the default actions based upon the County's operational requirements.
Incident Status Queue	The CAD Enterprise Incident Status Queue displays all open incidents. Users with the appropriate rights can configure different tabs to segment the incidents displayed in that tab. By selecting the desired columns, users can view different pieces of information related to the call for service, rearrange and resize the columns, then filter and/or sort by a displayed column to view the desired segment of incidents. System Administrators can configure the colors displayed based upon the priority of the incident.
Unit Status Queue	The CAD Enterprise Unit Status Queue displays all units built into CAD Enterprise. Users with the appropriate rights can configure different tabs to segment the units displayed in that tab. By selecting the desired columns, users can view different pieces of information related to the unit, rearrange and resize the columns, then filter and/or sort by a displayed column to view the desired segment of units. System Administrators can configure the colors displayed based upon the status of the unit.
Recall Window	The Recall Window allows users to display an incident summary in a separate, resizable window without launching the Incident Viewer or Incident Editor. Users can display multiple Recall Windows providing the quickest means to instant access of specific system stored information.
Command Line Control	CAD Enterprise provides a powerful command-line tool. The command line is an interactive GUI dialog box that provides for syntax-driven command line entry. The command line provides a smart-sense syntax guide to facilitate learning of new commands and guide the user through required parameters of entry. Upon



Standard Feature	Description
	entry of a PowerLine command, the command description is presented to the user in the County's chosen plain-English text, providing further guidance and easing the learning curve for new users.
Call Taking and Dispatching Windows and Functions	CAD Enterprise streamlines call taking and dispatching by providing fast, versatile tools for emergency and non-emergency calls. These two functions provide increased flexibility in the way both types of calls are handled by putting critical call location, resource allocation, and demand information at the user's fingertips.
Emergency Call Taking	The CAD Enterprise Emergency Call Taking window is highly configurable and provides address verification that is optimized by city and county selection and rapid selection of a problem type.
Scheduled Call Taking	The CAD Enterprise Scheduled Call Taking module allows agencies to create calls for service in advance. These calls appear in the Pending Incident Queue at an administratively defined threshold relative to the time that the incident was scheduled for dispatch.
Geo-Locator Screen	The Geo-Locator screen works with the street information built into CAD Enterprise. Every time location/address information is entered into an address field and the user tabs out of that field, the system activates the Street Finder utility.
Notifications and Pre-Alerts	Groups of individuals and units can be paged automatically based on the problem type or location of the incident, and other granular triggers such as alarm level, priority, location type (e.g., Elementary School), and more.
Location Information	Caution notes, Hazmat information, location notes, and automatic map grid coordinates are associated to the verified address. In addition, caution notes can also be associated with a geographic area or phone number to ensure relevant information is presented to CAD Enterprise and Mobile Enterprise users.
Closest Premise Type to Incident	The system displays a configurable number of closest premises to the incident location based upon premise type and incident type. Results contain the premise name, address, and estimated drive time from the incident location. Results are displayed to the CAD Enterprise and Mobile Enterprise user.
Confidential Comments	Users can mark new and pre-existing comments as confidential which prevents the comment from being shared with other agencies.
Comment Numbering	The System Administrator can configure the system to successively number comments as the comments are entered into an incident.
Dispatch Rules Setup Utility	 The Dispatch Rules Setup Utility allows the County to create, save, edit, and delete advanced dispatch rules. Dispatch rules allow the following recommendation algorithm modifications: Activate an in-quarters delay time



Standard Feature	Description
Facility Divert Module	 Designate alternating unit recommendations for like units in the same station Create rules to set weighting factors for ETAs by primary resource type Designate higher priority response rules Designate unit swap notification parameter rules Dispatch rules are agency-specific with interagency security controlling access to the utility. The CAD Enterprise Facility Divert module alerts the user when a receiving location (e.g., hospital, trauma center, jail, detoxification
	facility, or juvenile detention center) is temporarily unable to accept new sick, injured, or in-custody personnel. This feature works with the Depart Scene screen and warns the user when an attempt to change a unit's status from en-route to a destination with an active facility status warning.
Proactive Unit Swap Recommendations	CAD Enterprise constantly monitors all units to evaluate if a unit which becomes available from an incident assignment will arrive to a call faster than the currently assigned unit. CAD Enterprise Unit Swap will make the user aware that another unit will arrive faster and give them the opportunity to exchange the unit assignment.
Unit Recommendations	The CAD Enterprise Response Recommendation system can make unit recommendations based on a fixed station order, closest unit by direct distance, or by estimated travel time using AVL data and the optional CAD Enterprise Quickest Path Dispatch (QPD) Recommendation module.
Quickest Path Unit Recommendation	Provides for quickest path unit recommendations and routing instructions for CAD Enterprise and Mobile Enterprise. This layer of data calculates travel time based on road networks using operations research modeling technology. CAD Enterprise uses this information to identify the closest applicable unit available based upon projected travel times.
Dispatch Levels	Dispatch levels are used to initiate upgraded (or downgraded) emergency response plans during periods of heightened (or reduced) threats, such as brush-fire season or disaster situations (e.g., earthquakes, terrorist acts). This enables the System Administrator to create multiple dispatch levels within each response plan. Dispatch levels can be scheduled (e.g., during school hours) or changed as needed by an authorized dispatcher.
Resources	Each vehicle or apparatus is assigned a primary resource type and can be assigned one or more secondary resource types. CAD Enterprise considers all the resource types associated to a vehicle when recommended units for response to an incident.
Capabilities	Each assigned vehicle or apparatus can be assigned either permanent or temporary capabilities. Temporary capabilities are



Standard Feature	Description
	associated with the vehicle until that vehicle is taken off duty. CAD Enterprise recommends a single vehicle to meet multiple capabilities to ensure all resources are met in a response plan.
People as Capabilities	The system administrator can assign special capabilities or skills to individual crew members or officers. When the crew members or officers are assigned to a unit, that unit will then assume those capabilities.
Capability Type/Substitution Builder	The Capability Type/Substitution Builder is a resource management tool that allows alternative capabilities to be created.
Resource Group Manager	The Resource Group Manager is used to combine several resources into a single, super resource. For example, if there is a strike team composed of five engines and one strike team leader, a client system administrator could set up one group containing all of these resources and call it Strike Team 1.
Greater Alarm	At any time, the user can activate special alert conditions which result in differing levels of preparedness in anticipation of an unusual or critical situation by increasing the alarm level of an active call.
Response Reconfigure	The Response Reconfigure feature allows users to re-evaluate the resources originally assigned to a call whenever the response changes after one or more vehicles have been assigned. CAD will then recommend any additional resources that are needed or any resources that should be cancelled.
Unit Tracking	CAD Enterprise enables the user to track and deploy public safety resources with maximum efficiency. Each unit is monitored at every status.
Primary and Back-Up Unit Tracking	CAD Enterprise provides an option to identify Primary Units on each incident. The first unit dispatched/assigned to the call will be designated as the Primary Unit by default.
Conditional Availability	Statuses are labeled in accordance with the organization's standard terminology. Unit status can be changed without leaving the dispatch screen, always allowing the user to remain focused on the system.
Conditional Availability and Out of Service Manager	This utility allows users to define Out-of-Service and Conditional Availability reasons, define warning thresholds, and set default priorities for which the unit is recommendable.
Estimated Time of Arrival (ETA) Alerts	The System Administrator can configure agency-specific ETA alert thresholds to alert dispatchers when a unit is late arriving at the scene on an incident within the time frame allocated by their routed ETA. The ETA alerts are displayed in Advisor. Sound Manager is used to configure the sounds associated with ETA alerts. Additionally, Column Setup provides the ability to configure a



Standard Feature	Description
	column to display the ETA countdown timer in the Unit Status and Assigned Unit queues.
Geo-Fencing and Alerts	Geo-fencing enables the user to create virtual boundaries to be displayed anywhere on the CAD Geo map. The Geographic Area Builder provides the ability for users to create ad hoc geographic areas and mark them as geo-fenced. Users can modify, delete, enable, or disable geo-fences as required. When a location-aware device enters or exits a geo-fenced area, or when an incident is created in a geo-fenced area, CAD Enterprise generates an alert. The alerts are recorded in the Activity Log and displayed in Advisor, if configured.
Exception Tracking	CAD Enterprise Response Exception Reporting tracks a unit's response times and displays exceptions. Users can add an Exception reason at the time a unit makes a status change, at the close of the call or when the user logs off. The Exception Reporting form allows users to search for exceptions by date, optionally show all exceptions including those that have already been answered and edit a previously recorded reason.
In-Station Delay Penalty	Delay penalties can be set for one or more stations within an agency. The designated penalty, a time value, affects the ETA calculation of each unit in quarters at the applicable stations. Penalties can be applied to certain times of day. For example, many stations require a delay only at night. Currently, two time delays can be configured per station.
Alternating Unit Order in Same Station	Alternating unit recommendations can be set up at one or more stations within an agency. Like units (same resource type or same capability) that are in an In Quarters or Local Area status for the same station and have identical ETAs are eligible for the rule. Similar to a first-in, first-out scenario, the unit that is determined to not have participated in the most recent incident will be recommended.
Variation of Travel Time by Resource Type	The ETA calculation of a unit can be altered based on its primary resource type. Resource types can be assigned a travel time weight in the form of a percentage. During the unit recommendation process, the system will multiply the ETAs of applicable units by the travel time factor. For example, a resource type that is estimated to respond 10% slower than other types of units can be assigned a travel time weight of 110%.
Records Check	The CAD Records Check functionality provides the user with a quick method to initiate record checks of people, property, and vehicles from databases within CAD Enterprise, Records Enterprise, and the optional additional connection(s) from external sources.



Standard Feature	Description
Communications	CentralSquare provides a robust messaging system which provides a powerful set of tools for communication within the CAD Enterprise, Mobile Enterprise, and CAD Enterprise Browser environments.
Enterprise Messaging	 Users have both a login mailbox and a current workstation mailbox where messages are routed. Sector controllers, and those with appropriate rights for records check queries, have additional mailboxes. Standard messaging functionality includes: File attachments (size and file-type limitations set administratively) Scheduled delivery Hyperlink insertion Spell check Priority settings Sensitivity settings Preview functionality Saving messages to folders Attaching messages to incidents Forward and reply functions Intellisense functionality in the To and CC text boxes Message auditing (administrative)
	CAD Enterprise provides a powerful administrative tool suite for managing mail configurations and for message auditing.
Quick Mailroom	The Quick Mailroom is an extension of the CAD Enterprise Mailroom feature and provides the user faster access to important messages.
Paging and Dialing Setup Utility	Administrators can use the Paging and Dialing Setup utility to create automatic, jurisdictionally based, client-defined paging messages. Service provider configuration properties are also managed in this utility.
Response Group Paging	 When an Automatic Response Group Paging setup is configured, a page is sent to the assigned paging group(s) when an emergency call meets matching criteria. These criteria include: Jurisdiction Division Battalion Response Area Incident Type Nature/Problem Alarm Level Premise Location Type Premise Geographic Area Disposition



Standard Feature	Description
Message Audit Utility	All messages are logged and stored in the system audit files. Users allowed to perform audits of all messages within each agency are defined in the system. Authorized users can search messages by date/time, sender, receiver, mailbox, and keyword. The Message Audit Utility allows users to view the contents of each message, as well as the time the message was sent and opened.
Messaging Setup Utility	This utility provides system administrators the ability to control CAD Enterprise Messaging mailboxes.
CAD Be-On-the-Lookout (BOLO)	The CAD Enterprise BOLO module provides the user with a form that can be used to quickly, yet systematically enter enforcement information regarding people, vehicles, and locations.
System Tools	CAD Enterprise provides a complete toolbox of utilities that enables the system administrator to tailor the system to meet specific requirements and to streamline operations. The CAD Enterprise modular- and function-level security system allows the flexibility necessary for the system administrator to also provide these tools to appropriate personnel.
Modify System Information Utility	The Modify System Information Utility is one of the main tools for setting up CAD Enterprise and setting the operational rules for each CAD Enterprise agency.
Pop-up List Manager	Pop-up List Manager allows for the entry of list information that will appear in all the drop-down menus such as cancellation reasons, problem types, personnel certification types, incident types, late response reasons, radio channels, and unit types.
Column Setup	Each agency can use the Column Setup utility to add and delete columns and change the column titles, data elements, widths, and order of appearance of the CAD Enterprise windows.
Cardfile Utility	This utility stores frequently used phone and pager numbers allowing users to respond more quickly to the situation presented. The Cardfile Utility can be searched via the command line for quick access to recorded information by keyword.
Location Type Utility	The Location Type Utility allows for the categorization of premise- location types.
Caution Note and Permit Manager	The CAD Enterprise Caution Note and Permits Manager allows the management of warnings, hazards, and permits on phone numbers, addresses, premises, streets, block ranges, and geographic areas. When one of these items is used in call creation, the Caution Note or Premise is triggered. These can also vary by agency in a multi-agency environment. The Caution Note and Permits Manager can link files for retrieval to Caution Note and Permit records, providing additional information access to CAD Enterprise and Mobile Enterprise users.



Standard Feature	Description
PowerLine/Function Key Setup Utility	This utility allows administrators to configure the codes and linked CAD actions used in the CAD Enterprise command line (PowerLine).
Problem (Incident Subtype) Utility	Use the Problem (Incident Subtype) Utility to build and maintain a list of problem/nature types that appear in the Emergency and Scheduled CallTaking windows.
Priority Builder	The Priority Builder is used to build a list of priorities for various Nature/Problems. The type of response required for each priority can be described and the severity level associated with the incident can be selected.
Response Plan Manager	The Response Plan Manager supports planned management of calls, resources, capabilities, and resource groups. These utilities allow for the creation of response plans that pre-designate the number and type of resources or capabilities to assign to an incident type.
Emergency Call Setup	The Emergency Call Setup tool allows the client system administrator to determine which fields appear in the Emergency CallTaking window and define the order in which users tab from field to field.
Scheduled Call Screen Configuration	Both the Patient Information and Scheduled CallTaking screens can be configured, creating customized labels and assigning mandatory fields.
Pre-Assignment Utility	This utility allows authorized users to pre-assign units to scheduled calls for service up to seven days in advance.
Pre-Scheduled Call Threshold Utility	Use the Pre-Scheduled Call Threshold Utility to set daily and hourly limits for the number of scheduled calls that can be assigned to a division. Client System Administrators can set an unlimited number of calls or an hourly limit.
Shorthand Comment Builder	Use the Shorthand Comment Builder to create a list of abbreviations for commonly used terms and phrases.
Custom Data Field and Custom Time Stamp Builder	The Custom Data Field and Custom Time Stamp Builder tools allow the system administrator to create user-definable fields for the capture and storage of data from the CAD Call Taking screen.
Timers and Warnings Setup Utility	The Timers and Warnings Setup Utility configures timers, warnings, facility warning colors, and timestamps throughout the CAD system. Timers can be set for vehicles in four categories: Flight Timers, Custom Timers, User Timers, and Response Time Timers.
User Timer	Users can activate a timer for a unit for the default time period or for a user-defined time period.
Response Time Timer	The Response Time Timer allows users to specify, for each priority, the amount of time before the required response time expires and triggers a warning.



Standard Feature	Description
Sound Manager	Use the Sound Manager to create and assign sounds for the warnings set up in the system. The Sound Manager works with the sound card installed in the workstation hardware. Client System Administrators can also use the Sound Manager to record and save customized sounds through a microphone or audio device.
Personnel Manager	The Personnel Manager is an employee database that allows for the entry and modification of personnel information.
Vehicle Manager	This utility allows for the creation of units, documentation of unit information and capabilities, and maintenance of unit information.
Rostering	CAD Enterprise supports scheduled and on-the-fly rostering of units. Rostering allows for the creation, maintenance, and management of crew shifts.
Auto-Rostering	 Auto-rostering provides the following capabilities: Create and assign pre-planned shifts to units and personnel Track scheduled roster events Receive user notifications for service failure, shutdown, or errors that occur while processing shifts eligible for automatic rostering.
Roster Setup Utility	The Roster Setup Utility is where shift options and defaults are set for each CAD Enterprise system agency.
Unit Cross Staff Utility	This utility manages cross-staffing rules on a unit by unit basis. Some stations have the same personnel assigned to multiple units.
System Status Management (SSM) Manager	The CAD Enterprise SSM Manager allows for the creation of move- up plans (System Status Management Plans) to manage unit locations by time of day, day of week, and unit type.
Rotation Provider Utility	 CAD Enterprise provides the ability to track services provided by outside providers and to rotate calls among them. There are two methods of creating a rotation-service request: using the PowerLine or using the CAD Enterprise user interface. The Rotation Provider module of CAD Enterprise includes the following features: Provider cancelation reasons Enhanced rotation provider information Rotation response numbers Activation or suspension of a rotation provider Default rotation order with or without a service area. With the use of Service Areas, the Rotation Provider feature can present users with a recommendation of a Rotation Provider for an incident based on a preconfigured rotation and geographic location Rotation providers can specify the Service Areas (zones) they service. For each area, rotation providers should



Standard Feature	Description
	specify which types of categories they can support in a given area. For example, for Service Area A, a provider can support light tow and motorcycles, but in Service Area B, a provider can support light tow, flat bed, and impound. The options are agency configurable.
Rotation Setup Utility	The Rotation Setup Utility provides for management of rotation order by category of rotation.
CAD Media Attachments Module	The CAD Enterprise Media Attachments module provides the ability to link files to incidents, caution notes, and premise records, maintaining all links in a document's database. Users can add received documents to incident, premise, and caution note records that are readily available upon the recognition of the premise location, caution note, or historical incident record.
Custom Timer	Custom Timers are activated automatically based on status, primary resource type, and problem/nature. Any user can reset timers based on the same time measurement.
Security Tools	The CAD Enterprise multi-level, integrated, security system prevents unauthorized personnel from tampering with data or accessing administrative functions. Administrators may control access to the overall program (or any portion). CAD Enterprise provides full control of user setup, including group definitions.
Account Lockout	Account Lockout enables authorized personnel with the ability to configure the system to automatically lockout users who enter an incorrect password after a predefined number of times.
Windows Integrated Security Module	An optional Windows Integrated Security module allows for a single logon for CAD Enterprise and the Windows Operating System.
Lightweight Directory Access Protocol (LDAP)	CAD Enterprise supports LDAP. When LDAP security is enabled, unsuccessful login attempts are applied to the Active Directory account.
Module Security Manager	The Module Security Manager allows each system module to regulate viewing, adding, deleting, editing, and exiting CAD as allowed by user-defined security groups, providing both group and function-level security.
Functional Security Manger	The Functional Security Manager extends system security by enforcing group security policies and profiles down to the functional level. These security restrictions are applied to each dispatching command.
Password/Security Assignment Manager	The Password/Security Assignment Manager sets up password formats, expiration dates, account lockout, and security levels for the system. It can also change security levels and reset passwords.
Permission Security Manager	CAD Enterprise provides both modular- and function-level security. This utility provides administrators with the ability to easily open or restrict permissions by user functionality group down to view, add,



Standard Feature	Description
	delete, and modify rights as well as mandate to the command level what actions a functionality group member can and cannot commit in CAD Enterprise.
Multi-Agency Configurations	As a result of the CAD Enterprise multi-agency functionality, each agency can have a unique Public Safety Analytics Enterprise set of code files, response areas, response plans, units, etc., which results in an integrated CAD system on the same physical server box while sharing a common messaging system and a single database.
Agency Builder	Agency Builder allows each agency to build their individual agency hierarchy by defining their agency type, jurisdictions, divisions, and battalions.
Number Setup Utility	The Number Setup Utility is highly configurable and allows each agency to configure unique incident and case numbers by agency and at the jurisdictional level.
Configurable User Screens by Agency	CAD Enterprise allows the system administrator to select the information to be displayed in queue columns from a variety of standard CAD data fields, as well as the layout of the emergency call taking screen.
Multi-Agency Problem Utility	The Multi-Agency feature allows users to take a call from one agency and then add other agencies to the response. Using the Multi-Agency Problem Utility, administrators can cross-reference problems from one agency to problems in other agencies, jurisdictions, or response areas, resulting in an automatically spawned call for another agency to respond. Comments can then be shared across the calls to ensure efficient transfer of information.
Controlling Dispatcher Utility	In general terms, a Controlling Dispatcher has responsibility for one or more defined geographical areas or sectors within the service area as a whole. Incidents occurring within these sectors and the units assigned to those incidents are under the control of the Controlling Dispatcher. Certain defined abilities are granted to a Controlling Dispatcher, which cover all incidents and units under that dispatcher's control.
Inter-Agency Security	The Inter-Agency Security module is used within a multi-agency system and allows the system administrator to limit which users and user groups have permission to view each agency's CAD information.
Inter-Agency Comment Sharing	The Inter-Agency Comment Sharing module determines which agency comments can be viewed by other agencies on multi-agency calls.
GIS-Based Tools	CAD Enterprise GIS-based utilities allow the system administrator to modify certain settings that affect geographic-based data or functions.



Standard Feature	Description
Geo-Extensibility	Through the use of extensions, ArcGIS Engine, and ArcObjects API, developers can add toolbars and other supported enhancements to CAD Enterprise Geo. Additional features can be added using the optional CAD Enterprise API.
Extended Street Attributes	The configuration utility enables authorized users to configure extended street attributes.
Intersection Maintenance Utility	The Intersection Maintenance Utility allows users to view, modify, delete, and duplicate existing intersections in the streets' database by creating one or more aliases for the intersection. This allows call takers to select the alias that meets the needs of each call.
Geographic Area Builder	The Geographic Area Builder enables users to set up and define a mapped area for a geographic region. This lets dispatchers identify the agencies responsible for specific areas and provides for specialty polygons for Caution Note and Page triggers. Additionally, the Geographic Area Builder provides the ability for users to create ad hoc geographic areas and mark them as geo-fenced.
Hydrant Manager	The Hydrant Manager is used to enter and store details about fire hydrants. Users can set up and define hydrant locations that appear in a list and on the Map window. Once hydrants have been added in the hydrant Manager, users can view the hydrants on the CAD Enterprise Geo map by selecting Hydrant Layer for display. The CAD Geo Map Hydrant Layer will automatically update the symbol for hydrants when location and status (In-Service/Out-of-Service) changes are made to a hydrant record in this utility.
Intersection Maintenance Utility	The Intersection Maintenance Utility allows users to view, modify, delete, and duplicate existing intersections in the streets database by creating one or more aliases for the intersection. This allows call takers to select the alias that meets the needs of each call.
Premise Utility	The Premise Utility allows for the creation and maintenance of pre- built common locations, including additional information such as personnel, alarm information, comments, and targeted response plans. CAD Enterprise Premise records and Caution Notes can also provide access to file attachments.
Response Area Builder	The Response Area Builder allows for the creation of geographic response subdivisions that can be in the form of districts, beats, or first due areas. This utility includes graphical mapping tools to simplify the process of modifying response area boundaries. Modification to response area boundaries require no system downtime to enact.
Station/Post Manager	This utility allows for the creation of stations, posts, and the documentation of basic station/post information including equipment inventory, staffing information, and radio and pager information.



Standard Feature	Description
Street Alias Utility	The Street Alias Utility allows for the creation of alias names for streets or street segments, providing users the ability to attain address validation on numerous aliases in the process of call taking.
Road Network Management Utility	The Road Network Management Utility allows users to create impedances on the street network and on specific street segments by setting the speed limit to a value greater than or equal to zero. Impedance changes can take effect instantly, affecting the live routing recommendations in CAD or they can be scheduled. Users can also set a recurring pattern, including time of day and day of week. Other features include the ability to specify a reminder of expiration via Messaging.
GIS Playback	The GIS Playback utility provides the ability to view a vehicle's travel history on a map window during a specific period. GIS Playback will replay any incident record or time period stored in the system. Users can also use GIS Playback to display incident locations, common locations, and station/posts on the map window. It can be used with, or without, an Automatic Vehicle Location (AVL) interface.
Snapshot	CAD Enterprise provides a Snapshot report of the global system condition at the time a CAD incident was dispatched for historical re- creation of incident timeframes. The Snapshot report includes the status, location, and conditions on all units at the time of dispatch and provides a comparison between what the system recommended for dispatch and what the operator actually committed to the incident.
Geofile Cross Reference (Point in Polygon)	Allows the system administrator to provide a polygon shape file covering all or part of the streets feature data set. The lookup will determine the applicable polygon for a verified incident address, returning up to two field values per specific agency. The system will then enter the associated data into a designated data field. Each polygon is agency specific.
CAD Geo Map	The CAD Enterprise Geo Map display allows the user to view system activity geographically. Units are represented by color-coded icons corresponding to each unit's status.
Reverse Geo-Validation Tool	When the Reverse Geo-Validation Tool is activated and the user has an Emergency call-taking screen open, the user can click a point on the map to reverse geocode the latitude and longitude to a street address or directly to the latitude/longitude if it is too far from a street. This information populates the address field in the Emergency call-taking screen.
CAD Information Tool	Mouse-click to access information about any of the CAD layers.
Street Information Tool	The Street Information Tool displays information about a street, such as block range, street name, or response area.



Standard Feature	Description
Route Tool	The Route Tool provides driving directions between two points and graphically displays the route on the map.
Radius Zoom Tool	This tool will zoom the map according to the distance radius entry in the Locator, Set Focus Filter, or default radius zoom entered in the Explorer Setup Utility.
Distance Calculator	The Distance Calculator measures distances on the map in statute miles, nautical miles, or kilometers. Users can calculate the total distance of a trip or various legs. The calculator figures direction coordinates, distance, and displays the magnetic heading.
Area Calculator Tool	CAD Enterprise Geo enables users to draw polygons onto the map display and calculate the area.
Locator Tool	The Locator Tool opens the Locator window in which users can select a specific Unit, Incident, Premise, Address, or Station/Post.
User Markers	User Markers are optional graphics representing something other than the standard graphic markers. The user can then place a marker on the map as a visual reminder of a situation or information related to a street or area. User marker icons can be edited by the system administrator.
Polygon-Search and Save	Users can generate a list of data points located within a polygon. Users have the option to select which polygon layer to search for in multiple, existing layers or users can select one or more map layers within which to perform the polygon search. Results can be exported into an XML file for further processing.
Multiple Mapping Windows	The CAD Enterprise map can be configured to display one or many maps, meeting the individual needs of users.
Creating a Call from the Map	The CAD Enterprise reverse geo-coding feature allows users to pinpoint a call location on the map. When a location is selected, CAD Enterprise updates the map coordinates and/or call address in the Emergency Call Taking screen.
Dispatching with CAD Maps	Users can dispatch directly from the integrated maps. This functionality includes incident and unit management actions.
Dynamic Shapefile Display	CAD Enterprise can receive and process any Esri ArcGIS- compliant, externally generated shape files or layers. Using this functionality, CAD Enterprise will automatically distribute and display the shape files or layers on the CAD Enterprise workstation Geo maps.
GIS-Based Tools	CAD Enterprise GIS-based utilities allow the system administrator to modify certain settings that affect geographic-based data or functions.
GISLink Utility	The GISLink Utility, CentralSquare's GIS migration tool, allows clients to reference third-party GIS data sets and migrate the GIS data to and from CAD Enterprise. GIS data is maintained outside of CAD Enterprise using third-party GIS software such as ArcGIS. The



Standard Feature	Description
	GISLink Utility is then used to update CAD Enterprise with GIS- centric changes such as street attributes, response areas, and geographic areas. The GISLink Utility creates a "differences" shape that can be used to view changes made to CAD Enterprise. In addition, the GISLink Utility produces a log file detailing actions and potential errors encountered during the GISLink import process.

CAD Enterprise Optional Utilities

Option	Description
Call Taking and Dispatching Utilities	CAD Enterprise streamlines call taking and dispatching by providing fast, versatile tools for emergency and non-emergency calls. These two functions provide increased flexibility in the way both types of calls are handled by putting critical call location, resource allocation, and demand information at the user's fingertips.
Triage Integration in Call Processing	For operations that act as medical dispatch or call triage centers, the Emergency Call Taking activities can be supported by the CAD Enterprise Protocol module. In addition, the Emergency Call Taking module can be integrated with the following third-party emergency medical dispatch and triage systems: Priority Dispatch's ProQA [™] , APCO MEDS [™] , or PowerPhone [™] .
ProQA Response Level Assignment Manager	The ProQA Response Level Assignment (RLA) Manager links ProQA determinants to CAD Enterprise on a per-agency basis. ProQA codes are linked directly to a nature/problem and priority in CAD Enterprise.
Deccan Integration and Commit Module License - LiveMUM	Provides integration between CAD Enterprise and Deccan's LiveMUM product. The interface allows user to commit recommended move-ups in CAD, using the Commit feature in LiveMUM. LiveMUM must be purchased separately.
Standard Pictometry Integration Module License	CAD Enterprise offers an optional interface for integration to Pictometry. The Pictometry integration provides the ability for users to automatically send location information to the Pictometry application for call taking and dispatching.
Auto Dispatch	The Auto Dispatch module is a server-side component that automatically dispatches selected call types without user intervention. It is configurable by the agency and incident type. Quickest Path Module License is required.
Records Check	The CAD Records Check functionality provides the user with a quick method for initiating record checks of people, property, and vehicles from databases within CAD Enterprise and Records Enterprise, with the optional Message Switch from external sources.
CAD Command Line Records Check	CAD Enterprise contains a variety of command line functions for law enforcement operations. Using an optional, additional connection(s) from external sources, the inquiry can include external justice



Option	Description
	databases such as local police RMS, County, State, or Federal justice databases.
CAD Records Check Window	The CAD Records Check window provides users performing a query with an alternative method to the PowerLine. When inquiry results are returned, the system will route the results to the user that made the request.
CAD System Tools	CAD Enterprise provides a complete toolbox of utilities that enables the system administrator to tailor the system to meet specific requirements and to streamline operations. The CAD Enterprise modular- and function-level security system allows the flexibility necessary for the system administrator to also provide these tools to appropriate personnel.
Protocol Utility	The Protocol Utility is made up of three components: Protocol Utility, Protocol Form, and Protocol Summary Form. Use the Protocol Utility to build a set of questions and answers or Q&A trees; call takers can use this utility to walk a caller through an emergency or crisis.
SOP Setup Utility	The Standard Operating Procedures (SOP) Utility provides the ability to manually invoke an index of SOP documents and provide visual indications and links to call takers and dispatchers based on Agency, Jurisdiction, and Division identification as well as Problem Nature triggers. The SOP Setup Utility can be configured to either automatically display the SOP or merely alert the dispatcher/call taker that a SOP exists.
Flight Timer	Flight Timers are automatically triggered based on the Resource Type and Vehicle Status.
CAD Enterprise API License	The CAD Enterprise Application Programming Interface (API) lets programmers create applications that seamlessly integrate with CAD.

Mobile Enterprise Features

Feature	Description
Integrated CAD Functionality for Global System View	Mobile Enterprise seamlessly extends CAD information to MDC laptop devices. Multiple views allow users to quickly identify the current status of units and calls in CAD Enterprise via a visual map or queue form. Users can drill down on the map, unit, or incident to display more detailed information.
Real-time Access to Information for Quick Decision Making	Field users can view other pending and assigned incidents as well as their corresponding status, premise information, prior history, caller information, map, and status timestamps. Users can update their status and enter comments on an incident to easily communicate details to dispatch and other units.



Feature	Description	
Flexible Configuration Options Provide Agency- Defined Personalization	Using the Mobile Enterprise Configuration Utility, an agency's system administrator (and other authorized users) can configure the user interface for added ease-of-use. The Configuration Utility, which requires no in-depth coding knowledge, allows the system administrator to customize buttons, colors, texts, actions, forms, and other screens to personalize and improve the user's experience.	
Responsive and Intuitive Mapping Features	Mobile Enterprise uses the Esri standard in mapping engines to provide a rich, intuitive, and customer-specified experience. Maps for CAD Enterprise and Mobile Enterprise are created in ArcMap and are easily deployed to the Mobile Enterprise clients. This facilitates data sync with the dispatch center and allows agencies to provide the exact information field units require.	
Configurable Queries	Provides fast access to information in a reportable format. Options include:	
	Search incident Personnel search	
	Search incident personnel Reverse phone search	
	Search unit history Radius search	
	Search incident summary Search station by jurisdiction	
	Allied agencies for an incident Search premise information	
	 Query units by jurisdiction Unit status search or division 	
Additional Functionality Sent	Perform actions directly to CAD Enterprise:	
Directly to CAD Enterprise	 Add comment to activity log, opened, or closed incidents Request case number for open or closed incidents 	
	Update unit position Send page	
	Request primary unit Clear other units from the incident	
	Set incident disposition Change problem nature	
	Update incident address	



Field Ops

Field Ops extends the use of our Mobile Enterprise solution to authorized users wherever they are. As more personnel begin to use smart phones and tablets in the field, CentralSquare introduces Field Ops to provide extreme mobility and constant access to CAD Enterprise to send and receive information. Field Ops allows users to view critical incident-related information, update their status, send messages, and perform other mission-critical functions. This easy-to-use application is an essential tool for those who perform their jobs outside of the emergency vehicle.

	Field Ops reduces response times and provides users with immediate access to the information they need. This app is tightly integrated with the CAD and Mobile environments to provide Field Ops users with access to mission-critical functions without dispatcher intervention. Field Ops runs on tablets or phones (on Android or iOS platforms) and is available from each respective app store to ease the distribution, activation, and update processes.
\bigcirc	Stay connected regardless of where you do your job. Detailed information is readily accessed on smart phone and tablet devices, keeping the radio frequency clear for higher priority traffic. Field Ops provides continued connectivity and situational awareness for users once they leave their vehicle. The solution is also targeted for users who are not assigned a vehicle, spend large amounts of time away from the vehicle, and those without immediate access to Mobile Enterprise (e.g., officers on foot or horse, bicycle patrol, PIOs, chiefs, and other command staff).
	Field Ops gives real-time insight and awareness with access to incident and unit details, statuses, and detailed maps. Caution notes, alerts, and previous information about calls for service are also on hand to ensure the user is informed and aware. Real-time unit locations fed to and from Field Ops provide continuous situational awareness for both users and dispatch.

Field Ops Features

Feature	Description
Integrated CAD functionality for global system view	As a companion to Mobile Enterprise, the Field Ops app seamlessly extends information from CAD Enterprise to personal devices. Field Ops displays the CAD Enterprise Status view and the current status of units and calls via a map or queue. Users can drill down on the map, unit, or incident to receive more detailed information.



Feature	Description
Real-time access to information for quick decision making	The Field Ops Incident screen displays pertinent location call data and information on the nature of the problem. Users can view pending and assigned incidents and their corresponding status, premise information, prior history, caller information, map, and status time stamps. More importantly, users can update their statuses and enter comments to easily communicate incident details to dispatch and other units.
Mapping Included	Interactive mapping (by ESRI) provides a foundation for preparation and on-demand use, regardless if the user is in their own city or halfway across the United States.
User-Defined Filters and Searches	Field Ops enables users to filter types or resources, call types, or other data and quickly search for pertinent information.
Voice-activated comment entry	Users can enter comments into the incident via keyboard or use the voice dictation native to iOS or Android.
Get alerted of a call even when device is in your pocket	Using the native iOS or Android notification settings, Field Ops will still provide optional audible and banner alerts on the home screen, even if the device is locked and out of sight.
Real-time incident updates	Users can view updates about incidents or assigned unit statuses in real time without manually refreshing pages.
Seamless CAD Integration for Voiceless Dispatch and Statusing	Field Ops allows users to not only see CAD information (incidents and other units) but also status themselves onto field-initiated incidents, dispatched incidents, or select out-of-service reasons.
Dispatch Summary Panel	The Dispatch Summary panel appears on the Home screen when the unit is assigned to a call. This screen summarizes information related to the call and provides quick links to call-related tasks without requiring the user to navigate to other screens.
Call Times	 Field Ops displays information about call times: When the incident was entered Who entered the incident Time assignments were made Time a unit arrived on-scene and cleared the dispatched incident

Records Enterprise Modules

Module	Description
Administration	The Records Enterprise Administration module is used to set up user/roles and customize features to meet specific agency needs. This module allows agencies to define users, roles, codes, data entry templates, workflows, and other agency defined features of RMS.
Case Management	Records Enterprise provides a Case Management module to allow investigators to manage and track their case information. A case can be assigned to investigations as soon as the case is created in RMS regardless if a report has been submitted for the case. The case can be assigned to one or more divisions and one or more investigators. When a case needs to be re-assigned the case fields



Module	Description
	are updated to reflect the new assignments. Email notifications can be configured to automatically generate an email addressing a wide range of tasks such as task assignment, task status, or case dispositions as updated by either the supervisor or assigned user. If the task assigned exceeds the preset due date the assigned officer will automatically receive an email the task is overdue, and their agency designated supervisor can also be configured to receive this notification. Overdue notifications will continue to be sent until the task is complete. As the Investigator builds the case they and their supervisor will have the ability to use the "Case Synopsis Dashboard" for their case to view on one dashboard the case notes, case assignment, all person, property, and vehicles involved in the case; Investigator also can use the Records Enterprise link analysis tool to help determine suspects, involvements, associates, vehicles, locations, and a historical timeline of events associated to the person of interest.
Search	Records Enterprise has a robust searching tool that can be accessed from any screen throughout the product. The Quick Search function allows users to search using a "google like" search throughout RMS for matches to the keywords the user has entered. The advanced search parameters allow users to search Records Enterprise based on one or more specific fields including: case number, narrative, person information, vehicle information, property information, address information, attachment names and free text search of any OCR Compatible document. Searches and queries allow for exact matches, diminutive names, case insensitivity, date range parameters, and partial searches. All search results provide the user a link and drill down capabilities to access additional data. A new tab opens as the user drills down to allow the user to easily return to the search screen and continue to continue to refine their search results without having to re-enter the same search criteria.
Audit Log	Records Enterprise provides a comprehensive audit feature that tracks additions, modifications, deletions, views, searches and prints for reports and records in the system. The audit feature also tracks login attempts, password changes, workflow steps, and notifications that are sent automatically or manually from within RMS.
Link Analysis	The Records Enterprise Link Analysis function helps determine suspects, involvements, associates, vehicles, locations, and a historical timeline of events associated to a master record. The Link Analysis function provides a visual representation of all RMS summary reports and master records to which this master record is associated.
Image Capture	The Image Capture module allows agencies to retain and view mug shots, crime scenes, and produce lineups. Images can be attached



Module	Description
	to any record in the master indices. Images can also be searched and printed.
Civil	The Civil module tracks all information regarding a civil paper from the original receipt of the paper to its final service, including all service attempts. It can track all persons involved with the paper, including defendants and plaintiffs. Multiple fees and payments may also be attached per civil paper and connected with the responsible party.
Incident	The Records Enterprise Incident module records and maintains incident information, including offenses, names, vehicles, property, and drug data. The Incident module functions like the other modules inside of Records Enterprise, allowing for the modification of the incident data entry templates, custom report outputs, creation of custom data fields to capture data, and approval workflows to allow agencies to configure the module to meet their additional departmental needs.
Arrest	The Records Enterprise Arrest module maintains detailed information regarding arrests, from personal information about the arrestee, to information about vehicles or any property or drugs seized during the arrest and booking information. The Arrest module functions like the other modules inside of Records Enterprise, allowing for the modification of the arrest data entry templates, custom report outputs, creation of custom data fields to capture data, and approval workflows to allow agencies to configure the module to meet their additional departmental needs. The Arrest module provides the ability for agencies to capture, search and report on arrest and booking information. Officers can write their arrest report from the field and the arrest report data will be available to the booking officer to begin the booking process without any duplicate data entry. The arrest report will be linked to the full arrest record and can be viewed or printed out for court purposes.
Citation	The Records Enterprise Citation module tracks citation data based on the state form and provides the ability to print or view a copy of the citation using the state report format. The Citation module functions like the other modules inside of Records Enterprise, allowing for the modification of the citation data entry templates, custom report outputs, creation of custom data fields to capture data, and approval workflows to allow agencies to configure the module to meet their additional departmental needs.
Impound	Impound Vehicle records maintain information about vehicles that your department impounds. You can track hold information for an impounded vehicle and track the investigation of impound vehicles through investigative records. Impound fees should be defined before Impound records are added.



Module	Description
Expungement	The Records Enterprise Expungement process assists agencies in expunging (completely removing from the system) information from RMS in compliance with an order from a Court. Once an expungement is confirmed, the expunged data cannot be recovered. Names, charges, attachments, narratives, and memo fields can be selected for expungement. Narratives and memo fields must be manually reviewed to remove identified names.
Crash	The Records Enterprise Crash module tracks crash data based on the state Traffic Crash form and provides the ability to print or view a copy of the crash using the state Traffic Crash report format. The Crash module functions like the other modules inside of Records Enterprise, allowing for the modification of the crash data entry templates, custom report outputs, creation of custom data fields to capture data, and approval workflows to allow agencies to configure the module to meet their additional departmental needs.
Field Interview	The Records Enterprise Field Interview module maintains information about every aspect of a field interview, including basic information about the subject, their car, the address under surveillance, and other notes about the subject. The Field Interview module functions like the other modules inside of Records Enterprise, allowing for the modification of the field interview data entry templates, custom report outputs, creation of custom data fields to capture data, and approval workflows to allow agencies to configure the module to meet their additional departmental needs.
Masters	Records Enterprise provides master indices for person, organization, location, vehicle and master property. Each master indices tracks detailed information on the master record, alerts, notes, attachments, involvements, and associations in RMS. A timeline view provides users a chronological view of all associated reports to the master record and the ability to navigate directly to the associated record to view further information. The associations area of the master record shows how the master record is associated to other people, vehicle, property, organizations and locations in the master indices and reports in RMS. Authorized users can merge one or more master person, master organization, and master location records together using the master merge feature. Records Enterprise also provides authorized users the ability to unmerge master person and master organization records at any time in case records were merged incorrectly. When an unmerge occurs the master records are separated and the associated involvements link to the master record they were originally associated within RMS.
Other Events	The Records Enterprise Other Events module is fully customizable and will display any fields defined by the agency's System Administrator. Once built, the Other Events can exist as their own standalone module; users can access the new module from the menu as if it were a native module. Other event records allow you to maintain non-criminal or other generic event information



Module	Description
Restricted Access	Records Enterprise provides a restricted access or confidentiality feature that allows users to restrict access on a per case basis by users with read rights for that specific case. Records Enterprise allows users to restrict access to certain sections of a report but does not have the ability to restrict access at the field-level.
Property & Evidence	The Records Enterprise Property & Evidence module automates the collection, tracking, tagging, movement, and storage of property from initial collection to release or destruction. Records Enterprise streamlines the gathering of evidence by allowing officer the ability to enter evidence data directly into their Incident reports and start the chain of custody immediately in the field. Barcode labels are defined by your agency and can be printed and/or pre-printed either at time of intake from the field or from within the property and evidence module. The evidence technician can continue to manage the evidence throughout the rest of its lifecycle and all information can be viewed and printed using the chain of custody report or audit trail.
Redaction	Records Enterprise provides a redaction feature that allows the user to redact individual fields or independent sections of the report (Suspect, Victim, Narrative, etc.). Redaction within the narrative can be done using common Microsoft Word functionality (find and replace). The Records Enterprise Redaction feature allows the user to check or uncheck a data field checkbox to be included on a report. Checked field boxes display black diamond icons, indicating the data in the fields is hidden.
Warrants	The Records Enterprise Warrant module tracks and maintains information about every aspect of a warrant from personal information about the subject to information about the disposition and service attempts of the warrant itself. Records Enterprise can interface to court systems to automatically create the warrant record in RMS or a user can manually enter the warrant records. The Records Enterprise Warrant module also consolidates the user experience of the officer and records clerk into one workflow. Officers can be assigned a service attempt task in the field and the warrant can be automatically updated without requiring additional data entry.
State Reporting	The State Reporting feature enables you to validate entire cases and create computer files containing reportable data for your agency's cases. State reporting is simplified through an intuitive validation process and electronic file submission, which significantly reduces the time to complete and submit statistical and summary reports. In addition, Records Enterprise stores original and supplemental reports, capturing the author and approver of each report.



Aware (TELLUS) CAD-to-CAD Interoperability

Built using an intelligent hub-based architecture, the fault-tolerant, interoperable system is designed as a COTS product that is user configurable and affordable to all agencies. Plug-and-play adapters connect disparate CAD, records, and other public safety systems to the hub where business rules can be configured as needed to meet the operating procedures of each inter-agency relationship. Mutual aid, automatic aid, and other cooperative arrangements can be set up and managed so that requests, actions, and responses are facilitated in real time instead of using traditional phone based or radio coordination.

"We've programmed out CAD to determine who's the closest resource that matches a specific problem and send it out, where in the past we would have had to manually find it. We're able to not only choose those units, but to notify those units automatically, so a process that used to take us anywhere from 3-4 minutes is now down to probably a minute and a half." *John Garcia, Dispatcher, City of San Antonio*

Technical Architecture Information – Uptime, Dependability, Performance, Continuity of Operations/Hot Fail-Over, Disaster Recovery

CentralSquare Response:

The Public Safety Suite Enterprise contains multiple, loosely coupled application modules and commercial third-party components that are deployable in a wide range of platform architectures. This open design affords optimum flexibility and maximum scalability at time of deployment and over the life of the CentralSquare solution.

CentralSquare systems operate on a virtualized platform with commodity servers based on the Intel 64-bit x86 architecture using VMware vSphere ESXi hypervisors, Microsoft Windows Server operating system software and Microsoft SQL Server Relational Database Management System software deployed with a common shared storage system. The Information supplied below illustrate the robustness and breadth of the hardware and commercial software components that include tier one products from acclaimed industry leaders such as Intel, HP, Dell, Cisco, Nutanix, Microsoft, VMware, and others.

The choice of specific products represents one of many options for the deployment of a CentralSquare solution. Our solutions are vendor-agnostic, and we can work with an extensive catalogue of commercial enterprise computing products.

The typical solution includes hardware and software combined to provide four distinct operating environments:

- Primary Production System with High-Availability Local Back Up (within the Primary Data Center framework)
- Disaster Recovery System for the Production Environment
- Test Environment (at the Primary Data Center)
- Training Environment (at the Primary Data Center)

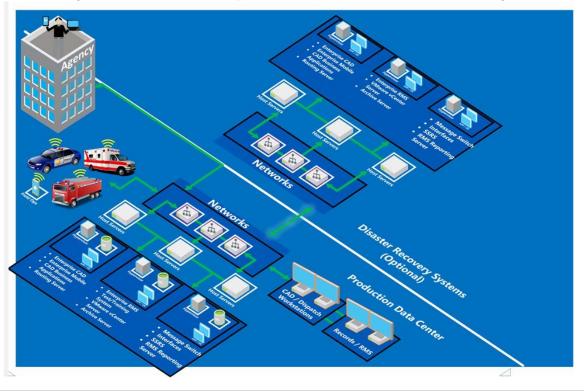


In our typical configuration, there are sufficient computer resources available to operate the production, test, and training environments, and for the production systems to survive the failure of any component all the way to a complete physical server. The primary data center is designed to withstand scheduled system upgrades and survive unplanned failures that disable, in many instances as much as 33% of the server, network, and storage resources.

Components and interconnectivity within the CentralSquare solution are conceptually divided into five layers:

Compute	Contains the components that provide the computing power within the
	CentralSquare operating platform. These servers host the virtual machines, the
	VMware vSphere suite of virtualization products and the Microsoft Windows
	operating system software for the virtual servers.
Network	Contains the components that provide switching, routing and network security
	within the CentralSquare operating platform and between the CentralSquare
	operating platform and the end user networks operated by the County. In
	absence of a client preference, CentralSquare promotes Cisco and Mellanox
	network hardware.
Storage	Contains the components that provide shared storage. CentralSquare supports
	the use of Microsoft SQL Server Relational Database Management System.
Disaster	Contains the components that enable the continuation of vital technology
Recovery	infrastructures and systems following a natural or human-induced disaster.
	CentralSquare recommends Arcserve and Zerto virtual replication and disaster
	recovery products.
Client	Contains the components that provide end-user access to the suite of
	CentralSquare applications. Some CentralSquare applications have a purpose-
	built user experience based on Microsoft Windows client operating system while
	others leverage the universal features of supported browser software on
	Windows and iOS devices.





The diagram below illustrates a typical Enterprise CAD/Mobile/RMS configuration

Figure 1. Enterprise CAD/Mobile/RMS Configuration

Uptime, Dependability, and Performance

CentralSquare Response:

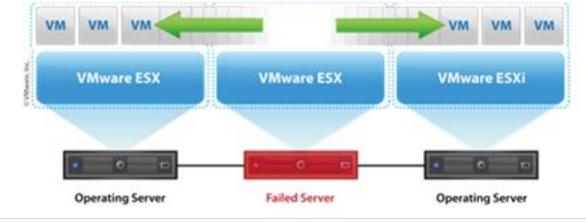
CentralSquare solutions are custom engineered to meet the performance and reliability requirements of a mission-critical public safety information and communications system. We could not have had the success we enjoy if our systems did not consistently deliver exceptional performance.

CentralSquare's solution is engineered with system-level redundancy, component-level faulttolerance, and disaster recovery features that have a proven record of exceptional reliability and maximum availability. CentralSquare systems are consistently delivering **99.999% uptime** of the production environment (exclusive of minimal scheduled momentary downtime for maintenance) across the application suite.

CentralSquare has engineered an operating platform for the primary data center that includes ample computing resources, redundant data paths and RAID storage architecture to survive the failure of any single component—all the way up to and including a complete physical server outage—without the need to migrate to a disaster recovery data center. The importance of the hot backup at the primary data center cannot be overstated. The only time a transition to the disaster recovery site is required is in the very unlikely event of a catastrophic system-wide or facility failure at the primary data center.



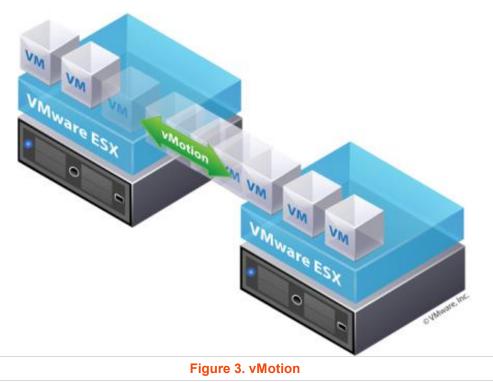
We exploit the features and benefits of the VMware vSphere High Availability architecture along with their Dynamic Resource Scheduler and vMotion functions to ensure virtual machines and their associated applications remain functioning on operational physical server resources at the production data center. This design keeps mission critical operations at the primary data center even after a server failure.



vSphere HA monitors virtual machines to detect operating system and hardware failures.

Figure 2. VMware High Availability

In the event of physical server failure, affected virtual machines are automatically restarted on other production servers with spare capacity. In the case of operating system failure, vSphere HA restarts the affected virtual machine on the same physical server; all without user intervention.





vSphere vMotion enables the live migration of running virtual machines from one physical server to another with zero downtime, providing continuous service availability and complete transaction integrity. The virtual machine retains its network identity and connections, ensuring a seamless migration process.

Should the primary data center suffer some form of catastrophic systems or facility failure, CentralSquare has additional technologies that keep the backup system current and ready to take over operations as well as an integrated solution for automating and orchestrating a failover should it ever be necessary.

Continuity of Operations/Hot Fail-Over, Disaster Recovery

CentralSquare Response:

CentralSquare solutions often include a disaster recovery data center with hardware and software platforms identical to the primary data center for maximum uptime of all applications, regardless of which data center the County is operating from.

The most common technologies used by CentralSquare include Zerto, VMware vCenter Site Recovery Manager (SRM), and ARCserve High Availability for managing data replication and failover/ failback functions associated with the Disaster Recovery (DR) backup site.

The data replication solution first synchronizes the data the primary production system with a second data store at the backup site. Once synchronized, the solution continuously replicates ongoing changes from the primary data center to the DR data center. It also provides real-time server and application monitoring, automatic and push-button failover, automated end-user redirection, and push-button failback functionality to help reduce system downtime.

With a CentralSquare solution, the vast majority of server, operating system and application software failures can be satisfied by transferring or restarting the failed systems or software to alternative functioning resources at the primary data center using the fully-automated features of the virtualization platform, negating the need to transition to the disaster recovery systems under most circumstances.

A failover to the disaster recovery site as the result of a catastrophic, complete system failure at the production site executes quickly and easily.

System Interface Information – Federal, State, and Local Databases Plus Third-Party Applications Including Power Phone Electronic Medical Dispatch

CentralSquare Response:

CentralSquare understands the needs of public safety agencies and is aware that no one software vendor or application will meet the needs of a modern, 21st century public safety agency. Building on this philosophy, a key component of our product suite is a solid foundation of interfacing and integrating with other software systems and applications across multiple platforms. For the past twenty-five years, CentralSquare has focused on standard and customized interfaces that work to meet industry standards and/or common vendors across our



client base. These interfaces have been developed to be extended or upgraded should the need arise in the fast paced, ever-changing technological world.

CentralSquare offers a variety of standard interfaces that have been developed due to the demand and value they bring to the users of our systems. Some of these interfaces include:

- Federal, Regional, and State Crime Databases and Fusion Centers
- State-required UCR reporting
- State-required NIBRS reporting
- State and Local Accident Reporting Systems
- State and Local Warrant Systems
- Esri Mapping
- NENA-Compliant ANI/ALI
- Basic and Advanced Two-Way CAD-to-CAD Integration
- Standard Alpha-Numeric Paging Interface Software (for Paging, SMS and Email Notifications from the CAD System)
- Fire Station Alerting
- Fire Station Printing
- Standalone AVL
- Push-to-Talk
- Priority Dispatch/APCO Meds/PowerPhone
- LiveScan Fingerprinting Systems
- Biometric Identification Systems
- Inmate Classification Systems
- Commissary and PayPhone Systems
- Public Crime Mapping Sites
- Court and Prosecution Systems
- Crime Analysis

CentralSquare has developed and licenses an Application Programming Interface (API) for use by our partners, third parties, and clients. Through this API, integration is enabled to many of the core functions of our public safety suite. Documentation, training, and consultation services are made available to the users of the API to help achieve the desired integration. The API is versioned, upgraded, and tested with each release to ensure system compatibility.

Should an integration need arise that cannot be satisfied either by an existing standard interface or by the CentralSquare API, CentralSquare provides engineering and deployment services to develop custom interfaces. CentralSquare has developed a comprehensive integration framework upon which custom integration work is performed. CentralSquare's experience in custom integration is extensive and includes complex criminal justice systems, air transport and naval navigation systems, various local and in-house developed applications to literally hundreds of external platforms. Each custom interface is supported during upgrades and, if needed, enhanced over time.

CentralSquare currently supports more than 4,000 interfaces across its worldwide client base.



Federal, State, and Local Databases

CentralSquare Response:

CentralSquare provides a Message Switch, which provides authorized personnel with the ability to query, display, or store Criminal Justice Information (CJI) data from federal, state, and local databases.

One of the benefits of the CentralSquare Message Switch is the ability to add what CentralSquare calls "Providers" to Message Switch. Providers are systems that Message Switch communicates with for query and response capabilities. These systems are typically local database systems within the agency's environment.

CentralSquare has interfaced with the following State CJIS and NCIC Networks:

- Georgia Crime Information Center (GCIC)
- Alaska Public Safety Information Network (ASPIN)
- Arizona Criminal Justice Information System (ACJIS)
- Arkansas Crime Information Center (ACIC)
- California Law Enforcement Telecom. System (CLETS)
- Colorado Crime Information Center (CCIC)
- Connecticut On-Line L.E. Comm. Teleprocessing (COLLECT) System
- Florida Crime Information Center (FCIC)
- Hawaii NCIC System
- Idaho Law Enforcement Teletypewriter System (ILETS)
- Illinois Law Enforcement Agencies Data System (LEADS)
- Indiana Data and Communications System (IDACS)
- Iowa On-line Warrants and Articles (IOWA) System
- Louisiana Law Enforcement. Telecom. System (LLETS)
- Maine Telecommunications and Routing Operations (METRO)
- Maryland Electronic Telecommunications Enforcement Resource System (METERS)
- Massachusetts Criminal Justice Information System (CJIS)
- Michigan Law Enforcement Information Network (LEIN)
- Minnesota Law Enforcement Message Switch (LEMS)
- Missouri Uniform Law Enforcement System (MULES)
- Montana Criminal Justice Information Network (CJIN)
- Nebraska Crime Information System (NCIS)
- Nevada Criminal Justice Information System (NCJIS)
- New Hampshire State Police On-Line Telecommunications System (SPOTS)
- New Jersey Criminal Justice Information Systems (NJCJIS)
- New Mexico Law Enforcement Telecommunications (NMLETS)
- New York State Police Information Network (NYSPIN)/eJusticeNY
- North Carolina Div. of Criminal Information Network (DCIN)
- Ohio Law Enforcement Automated Data System (LEADS)
- Oklahoma Law Enforcement Telecom. System (OLETS)
- Oregon Law Enforcement Data System (LEDS)
- Pennsylvania Commonwealth Law Enforcement. Assistance Network (CLEAN)



- Rhode Island Law Enforcement Telecommunications System (RILETS)
- South Carolina Law Enforcement Division (SLED)
- Tennessee Information Enforcement System (TIES)
- Texas Law Enforcement Telecommunications System (TLETS)
- Virginia Criminal Information Network (VCIN)
- Washington Crime Information Center (WACIC)
- West Virginia Automated Police Network (WEAPON)
- Wisconsin Transaction Information for Management of Enforcement. (TIME)

Third-Party Applications

CentralSquare Response:

There are a couple of ways CentralSquare Public Safety Enterprise applications can interface with third party applications. One is through the Message Switch additional Providers. Another approach is using universal data publishers and consumers which includes exchanges with third-party records management systems, personnel scheduling systems, electronic citation systems, pawned property systems, and many more. These exchanges are deployed in their native form as well as customized versions for specific applications.

Should a situation arise with a third-party interface that cannot be satisfied either by an existing standard interface or by the CentralSquare API, CentralSquare provides engineering and deployment services to develop custom interfaces. CentralSquare has developed a comprehensive integration framework upon which custom integration work is performed. CentralSquare's experience in custom integration is extensive and includes complex criminal justice systems, air transport and naval navigation systems, various local and in-house developed applications to literally hundreds of external platforms. Each custom interface is supported during upgrades and, if needed, enhanced over time.

Power Phone Electronic Medical Dispatch

CentralSquare Response:

CAD Enterprise integrates with call screening protocol software from several companies including:

- APCO IntelliComm
- PowerPhone (Total Response)
- Priority Dispatch Corp. (ProQA)

CentralSquare seamlessly integrates CAD Enterprise with PowerPhone, enabling the call taker to launch PowerPhone automatically within the CAD Enterprise call-taking screen. When the user reaches the point when a determinant is identified, the PowerPhone data is transferred to the CAD Enterprise call-taking screen and the CAD problem type is updated.

CAD Enterprise is ProQA Platinum Certified; re-certification was completed in May 2019 by Priority Dispatch.



System Dashboard and Reporting Capabilities

CentralSquare Response:

The following is a list of profiles the Public Safety Analytics Enterprise Dashboard supports for existing CAD and RMS customers:

- Incidents
- Warrants
- Field Interviews
- Arrests
- Citations
- Crash
- Calls for Service (CAD)

Crime Analytics Dashboard and Crime Analytics ARM (Advanced Reporting Module) provide the County the ability to configure dashboards to present data at a high level. Users can easily configure what is shown in the dashboards by selecting time frames, crime types, locations, etc.

Crime Analytics Dashboard sets the standard for access and interaction with analytics in public safety. Our "your data, your way" process means users see and understand crime and other information, in the County's terms and words, in a mission-specific context.

Crime Analytics Dashboard centers on Briefing Books that line up like an agency's command structure. A user's login takes them to their command or area's Briefing Book, a virtual threering binder that has mission-oriented pages containing maps and measures that are relevant and automatically updated. The County's Crime Analytics Dashboard Designer, typically an analyst, has complete control over what Briefing Books, pages, and widgets exist – what they're called, the style – map, chart, etc., the timeframe, and what data source or sources and factors they include. Crime Analytics Dashboard users see their activity and mission come to life and are able to intuitively engage and drill-down from high-level reviews, such as summaries of year-to-date activity compared to the same period the year before, all the way to a tactical view of a single incident and data record. The Designer can update Crime Analytics Dashboard's content and style on the fly – new team? New Briefing Book. New grant to monitor? Here's an 'easy button' query to recap that activity for use by the team's supervisor. Crime Analytics Dashboard remains relevant and dynamic because the agency has direct control over content, style, and alignment with their command and accountability process.

At the executive and command level, activity levels and changes can be determined at a glance for type, timeframe, and area based on the County's KPIs and calendar. Crime Analytics Dashboard achieves this through various widgets and the underlying data. Crime Analytics ARM takes this data to the next level with tables and charts that update as interaction occurs. Configured options for high-level review include crime and dispatch data, as a standard, and can be extended to include other data sources. Activity is summarized through tabs such as Statistical Briefing, Activity Reports, Command Summary, and COMPSTAT (agency-defined). Bookmarks and Excel exports make for quick and easy use, while the ability to "Share Session" and publish reports to PDF engages busy command staff so that quick conversations turn into relevant and complete products.



Role-based use of Briefing Books are extended by Queries on Demand and Hot Sheet alert functions in Crime Analytics Dashboard. Asking and answering further questions in Analysis Mode empowers users to create custom content as My Queries in Queries on Demand. Individual users are able to configure and set their own content as My Queries, essentially an 'easy button' that answers a question from the most recent data – and that answer lands on the map by itself, or as an overlay to other results from a widget or other ad hoc question.

This provides custom content under the user's control in a solution where all other content is consistent for users throughout the agency – same source data, same tools, same answers. A single click on GO in My Queries answers the question from current data as a map, interactive charts, or a data table that exports to Excel.

Records Enterprise Reporting

Records Enterprise Reporting is an ad hoc report builder, designed to be both powerful and easy to use. Databases contain vast amounts of information; typically, the data is only useful in small amounts. The Records Enterprise ad hoc report function allows the users to define a filtered range of records and a subset of fields from those records within the various databases. Creating an ad hoc report allows the user to define the database information and customize the page layout.

The County can create and run reports from data within the available modules such as Calls for Service, Arrests, Citations, and Field Interview and apply the full data model, so every field within the supported modules is exposed for reporting, including custom fields. Using the intuitive and easy-to-use graphical interface tools, users will choose data sets and parameters, columns, grouping, counts, and more to create reports from the simplest, to the most complex within one easy-to-use tool.

Advanced parameter filters allow for powerful combinations of filtering, including the ability to do "AND" or "OR" conditions grouped in different ways, allowing for innumerable potential filtering scenarios. Records Enterprise Reporting provides the user the ability to create meaningful and easy to read output reports such as summary and detailed reports as well as visual representations using various charts. Reports can be created and saved for individual users or shared to the agency for reuse. Records Enterprise Reporting also provides the ability to export data into spreadsheet form and allows users to copy the SQL statement created which can be used to take advantage of the powerful yet simple query builder to generate complex SQL queries.

Users can define a report form with headings, graphics, and a customized layout. These reports can be saved, re-used, and shared with other users. The reports are saved with specific filters and formats and are available from the Reports browser window. The County can add numerous ad hoc (custom) reports to add to the standard (canned) reports list.

Records Enterprise supports downloading and exporting reports in most commonly used formats.

CAD Enterprise Standard Reports

- Alarm Site Report
- BOLO Briefing Report

- CAD Log of Calls Report
- Call Source Analysis Report

- Caller Type Report
- Calls by Grid Report
- Call Volume by Service Level Report
- Canceled Incident Report
- Incident Report
- Snapshot Report
- Inter-Agency Comment Report
- Inter-Agency Security Report
- Out of Service Report
- Command Line/Function Key
- Configuration Report

- Prescheduled Call Report
- Problem Cross Reference Report
- Reconciliation Report
- Response Incident Listing
- Roster Hours Worked Report
- Rotation Provider Report
- Rotation Request
- Transportation Volume Report.
- Unverified Address Report
- Vehicle Response

CAD	Enter	prise	Features

Feature	Description
System Analysis and Reporting Tools	CAD Enterprise provides unique, interactive system management and reporting tools that provide dispatch center managers with a complete account of system activities, resource, and personnel performance.
CAD Enterprise Standard Reports	CAD Enterprise includes more than 30 standard reports that allow management to better visualize and use statistical information and recommend changes in resource deployment. CAD Enterprise reports are user-configurable and can be printed in either tabular or graphical form.
Incident Editor	The Incident Editor allows for the viewing and editing of CAD Enterprise incident information. The Incident editor provides the ability to conduct simple or complex searches of CAD Enterprise historical data; it can be directed to production servers or reporting servers.
Viewing System Logs	All transaction activities are logged to a system transaction file, which includes date, time, unit, activity type, location, comments, dispatcher, and computer activity.
Ad hoc and Complex Reporting Access	Ad hoc reporting is readily available through the CAD Enterprise relational database management system (RDBMS) which is built upon Microsoft SQL Server and makes full use of SQL Server's compliant open database connectivity (ODBC).

Mobile Enterprise Features

Feature	Description	
Configurable Queries	Provides fast access to informatio include:	n in a reportable format. Options
	Search incident	Personnel search
	Search incident personnel	Reverse phone search
	Search unit history	Radius search



	 Search incident summary log Allied agencies for an incident Query units by jurisdiction or division 	 Search station by jurisdiction Search premise information Unit status search 	
Additional Functionality Sent F Directly to CAD Enterprise	Perform actions directly to CAD Enterprise:		
	 Add comment to activity log, opened, or closed incidents 	Request case number for open or closed incidents	
	Update unit position	Send page	
	 Request primary unit 	Clear other units from the incident	
	Set incident dispositionUpdate incident address	Change problem nature	

Business Intelligence Solution Options if Different than Above System Reporting Capabilities

CentralSquare Response:

Public Safety Analytics Enterprise Dashboard

Public Safety Analytics Enterprise Dashboard (Dashboard) brings your data to life. The data becomes easier to access and can be used to provide decision support, performance management, and electronic briefing capabilities. All members of your department at the strategic, operational, and tactical levels can use the Dashboard. Mid-level managers can use the Dashboard to define operational missions, identify crime patterns and trends, allocate resources, and evaluate results. Front-line staff can use the Dashboard to drill down through levels of data to develop actionable information on criminals and crimes. Public Safety Analytics Enterprise Dashboard provides unprecedented mission planning tools for command staff, patrol supervisors, analysts and field personnel to define, assign, and communicate the department's patrol strategies.

Advanced geospatially based crime analysis, mapping, operational performance support, and situational awareness capabilities are framed in three major modes:

- Briefing Books provide thematic views of data packaged as widgets on a page and pages within a book. Briefing Books can be designed to support every level of the agency's policing mission providing role-specific information relevant to agency executives, command staff, investigators and patrol officers. Briefing Books can also be created in support of special projects, events, and strategic missions.
- 2. Analysis Mode provides power users with the ability to dive into the data and employ a bevy of advanced data analytical tools and visualizations to investigate patterns, trends, correlations, linkages, and relationships. With the addition of specialized emergency management symbol sets, video streaming and surveillance data, the availability of real



time asset tracking data (commercial vessels, patrol cars, patrol boats, foot patrol) and access control sensors, the mission design and planning capability can be used to establish special event preplans and support "on demand" tactical operations for evolving events such as active shooter scenarios, natural disasters, etc.

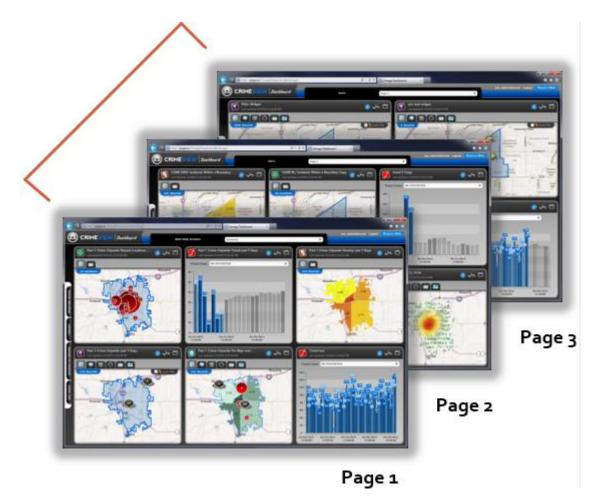
3. Missions, Notes and Playbooks provides a facility for command staff and analysts to design directed patrols or missions that result in mission packages that can be managed over time in playbooks. Missions are capable of being published into the new Public Safety Analytics Enterprise NearMe application where patrol officers can execute on their assigned directed patrols. Uniquely, the mission facility provides two-way communication between the executing patrol officers using the Public Safety Analytics Enterprise NearMe application and command staff using the Public Safety Analytics Enterprise Dashboard at the station. This capability also allows for marking up information to the map, attaching files, and linking additional information sources to points, lines, and polygons on the map.

The resulting combination of measures, maps, and missions—always current and interactive enables operational performance support at a level unparalleled in the law enforcement profession. It's a technology that works like the law enforcement mission.

Public Safety Analytics Enterprise Dashboard features include:

- Handles a broad array of data sets. Examples include calls for service, crime reports, field interviews, warrants, citations, arrests, tips, SARs, pawn shop data and persons-of-interest such as parolees, probationers, gang members, and sex offenders.
- 'Briefing Books' that can be based on role, organizational unit, geography, crime priority, or specific intervention.
- Specific 'Briefing Book' templates available for Executive, Roll Call, Directed Patrol, DDACTS, Border Crime Suppression, Special Event Planning, COMPSTAT.
- Cluster analysis for crime type, MO, area, etc.; day-of-week and time-of-day analysis; and crime correlation.
- ArcGIS Online, agency-provided, or Bing base maps.
- Data views are regularly updated.
- Integration with Public Safety Analytics Enterprise NearMe Mobile and CrimeMapping.com.
- Comprehensive ability to inform and optimize patrol-based strategies.
- Agency flexibility to customize the content and layout of the dashboard 'Briefing Books' and pages.
- Template customization for your data and specific requirements to hit the ground running quickly.
- Support of suspect identification and other spatial/temporal optimization activities for patrol officers.
- Leverage existing GIS investments or low/no-cost base map options.
- Establishment of agency-wide mission critical crime mapping and analysis platform.







Public Safety Analytics Enterprise Dashboard and the Advanced Reporting module provide powerful, practical ways to compare current and past activity. ARM provides various options for periodic and year to date analysis and reporting, with all interactive results easily exported directly to Excel. Weekly, monthly, and annual comparisons – pre-defined or selected ad hoc by the user, are presented as tables, bar charts, graphs, and grids.







Proprietary and Confidential Screenshot Figure 5. Public Safety Analytics Dashboard

"When" is a powerful tool for Public Safety Analytics Enterprise Designers, the agency analysts that typically configure and control the content all users see. Filter widgets ("pin" maps) are easily set to display bar charts summarizing data, and "When" settings can track year-to-date comparisons to previous years or other intervals that match an agency's reporting cycle. Trend widget chart configurations include counts and statistics based on daily averages, day of week adjusted averages, and standard deviation ranges from user-defined parameters. A constant value 'red line' some agencies use to track daily progress toward quarterly or annual goals. Flexibility for an analyst to select the best statistic for the particular crime or activity data, as the Designer Options example below shows, gives a clear and intuitive trend widget tool to the end user – recent activity, near-term forecast, and a trend line that considers years of history.



Proprietary and Confidential Screenshot

Figure 6. Dashboard Designer Options



Public Safety Analytics Enterprise Dashboard combines data, analysis, mapping, and knowledge management into a full operational performance support environment that mirrors the organizational structure of a fire department. This enables agencies to better visualize and manage their daily operations. Public Safety Analytics Enterprise Dashboard can be used at all levels of an organization.

Executive Level. Public Safety Analytics Enterprise Dashboard provides visualization of key performance indicators, and interaction with the underlying factors. Support NFPA compliance and accreditation, justify budgets, inform the political process, and set clear priorities for action.

Management Level Public Safety Analytics Enterprise Dashboard informs resource allocation, coordination of effort and performance evaluation across unit response, turnout, travel, and total reflex times. Assess and identify patterns, problems and the effectiveness response based on factors in incident reports, patient care reports, unit, and community data.

Operational Level. Public Safety Analytics Enterprise Dashboard empowers operational readiness and awareness through access and interaction with incident-level data, measures, and Missions.

Professional services implement a standard Public Safety Analytics Enterprise data configuration, integrate agency geography and geocoding layers, provide an initial template and content, then train the County's Administrator and Designers to create and manage relevant content.

CAD Enterprise Dashboard

"Your response time is greatly reduced, the change for error is greatly reduced and the main idea here is that the right resource can get to the right call appropriately responding to the emergency which is the whole point." Eric Mayville, Systems Administrator Engineer, City of San Antonio

CAD Enterprise users can execute specific functions using a variety of methods including pre-defined command line entries, prepopulated pull-down fields, character matching using type-ahead functionality, user-defined hot keys, function keys, or standard Microsoft mouse functions.

Screen resolutions are adjusted through the Windows Operating System display property controls. Font and icon sizes are administratively configurable and scale in accordance to map zoom. Incident form font sizes are administratively configurable.

Font display and sizes are not adjustable in the CAD Enterprise dispatch queues through CAD Enterprise controls; however, adjustment of screen resolutions can compensate where larger font size is deemed necessary.

CAD Enterprise provides administratively configurable color palettes for incident markers, unit status, and priority labels using the full Windows Operating System color palette. Screen resolutions can be increased/decreased through Windows operating system

controls. Map themes can be created administratively to accommodate different visual



spectrums. Windows also has functions such as Zoom Bubble or Zoom Mouse Window that can be used in conjunction with CAD Enterprise.

CAD Enterprise provides a complete toolbox of utilities that enables the system administrator to tailor the system to meet specific requirements and to streamline operations. The CAD Enterprise modular- and function-level security system allows the flexibility necessary for the system administrator to also provide these tools to appropriate personnel.

CAD Enterprise Standard Reports

- Alarm Site Report The Alarm Site Report works with the alarm information from the Premise Utility to give users the ability to print a high-quality list of Alarm Sites supported by an agency. This report incorporates the following information from the Alarm Information tab: alarm permit information, contact name/phone numbers, contact information and instructions, and zone information about the main alarm.
- **BOLO Briefing Report** The BOLO Summary Report is a picture of the BOLO records in the System database. Only information entered into the BOLO record in CAD Enterprise will appear in the report. For example, if a user enters only a subject name and age in a BOLO record, the report contains only those fields.
- CAD Log of Calls Report The CAD Log of Calls Report gives users the ability to evaluate the vehicle response time for the agency, jurisdictions, and call priorities selected. This report is like the Line-Item Incident Listing, also called the "Incident Report;" however, the information included in the CAD Log of Calls Report is vehiclebased rather than incident-based.
- Call Source Analysis Report The Call Source Analysis Report gives users the ability to analyze the volume of calls received by a predefined list of call sources. The call source classifications define the source or origin of a call. The County can define additional sources from which the call-taker can select. For example, user-defined classifications such as "Private Citizen" or "911 User" can be added to the set of call sources using the Pop-up List Utility.
- **Caller Type Report** During call taking, a call-taker chooses one of the selections listed in the Caller Type list box. This selection classifies the source of a call by point of origin. For example, a caller type may be a "911 Emergency" call or a call from the "Highway Patrol." The Caller Type Report allows users to review point-of-origin information for calls received within a selected date and time range. The Caller Type report can then be used to determine the frequency with which each type of caller uses the County's services.
- **Calls by Grid Report** In CAD Enterprise, grids are user-defined and represent a specific area on a user's map. Once created, these grids can be edited to overlay the map area(s) to be selected. The Calls by Grid Report prints the total number of calls in each map grid location for the selected date range.
- Call Volume by Service Level Report The Call Volume by Service Level Report graphs the County's call volume by Vehicle Certification Type or service level. Each vehicle built into the system must have a Vehicle Certification Type. When a vehicle is assigned to a call, CAD Enterprise records the certification type in the call record, which is then available to report the number of calls based on service levels.



- **Canceled Incident Report** When a call is canceled in CAD Enterprise, a Response Closing dialog box appears so the call-taker can select a cancellation reason for the call. The Canceled Incident Report gives the ability to select and review calls by their cancelation reasons, within a specified timeframe. This report gives users quick access to a breakdown of the reasons that calls are being cancelled.
- Incident Report The Incident Report provides a line-item listing letting users view or print response-time details from call start to call closed. This report is similar to the CAD Log of Calls Report, except that it allows cancelled calls to be excluded from the report. The report gives users the ability to review an agency's response times to calls within the dates and times selected. This report gives a complete look at how an agency responds to emergency and scheduled calls.
- **Snapshot Report** –CAD Enterprise records all incident data at the time of initial assignment. The report includes incident information, recommended units, assigned units, and the status of all other units at the time of the recommendation, including all other unit information (location, resources, AVL update. The report also includes a map of all units at the time of each recommendation.
- Inter-Agency Comment Report The Inter-Agency Comment Report is a list that documents the system's inter-agency comment sharing permissions.
- Inter-Agency Security Report The Inter-Agency Security Report is a list that documents the system's inter-agency security settings.
- Out of Service Report The Out of Service Report gives users the ability to print a complete list of out-of-service information for the vehicles in a user's system. This lets users accurately assess the reasons vehicles were taken out of service and how a user's organization was affected while a vehicle was in the out-of-service status.
- **Command Line/Function Key Configuration Report** The Command Line/Function Key Configuration Report gives users the ability to print a complete list of CAD Enterprise's Command Line actions, associated abbreviated commands, and function key assignments. This report is a useful training aid for dispatchers while they are learning new command line entries and function key designations.
- **Prescheduled Call Report** The Prescheduled Call Taking Screen provides call-takers with the ability to schedule patient pick-ups and transfers. The Prescheduled Call Report gives users access to important pickup and destination information for all prescheduled calls occurring within the specified date range.
- **Problem Cross Reference Report** The Problem Cross Reference Report is a list that documents the cross references between agency problem/nature lists.
- Reconciliation Report The Reconciliation Report gives users the ability to accurately
 verify billing interface records each month. This report provides users with a daily
 account of the number of incidents, canceled calls, and transports processed by CAD
 Enterprise in a month. The Reconciliation Report can then be compared to the balance
 sheets generated by the billing system.
- **Response Incident Listing** The Response Incident Listing prints a record of the amount of time it takes to respond to incident types, from call received to unit arrival at scene. It also presents the average response time for the agency, as well as for each division and jurisdiction.



- Roster Hours Worked Report The Roster Hours Worked Report details shift activity by crew member. This report sorts first alphabetically by employee name, then alphabetically by station, and then in ascending order by date. Users can use the Roster Hours Worked Report window to review detailed information about shift exceptions by employee name.
- Rotation Provider Report The Rotation Provider Report lists the County's service providers and the rotation categories each provider supports. There are two report styles: a line-item listing or a detailed listing. Users can include active or inactive providers in the report.
- Rotation Request Report This report gives users a historical account of a user's requests and separates the requests by rotation category. When processing a report, users can specify which categories and providers to include, as well as the report's date range. Users can also choose whether to view the report as a summary or detailed listing.
- Transportation Volume Report The Transport Volume Report counts the total number of patient transports for each day of the week and hour of the day. This report allows the user to assess the volume of calls needing patient transports for user-defined time periods. It also gives users an accurate look at the peak day/hours for patient transport services by an agency.
- Unverified Address Report The Unverified Address Report allows users to print information from calls with unverified addresses. Users can use this report to identify addresses entered incorrectly and streets without matching latitude and longitude lines in an agency's database.
- Vehicle Response Report The Vehicle Response Report prints the call dispatching times for selected vehicles. It also prints the average response time for each division and each vehicle, as well as for the entire agency. Users can filter calls by incident type or by priority.

Field Operations

Mobile Enterprise allows administrators to customize the look and feel of the application for groups of field users and for different disciplines such as law enforcement or Fire/EMS. This includes items such as button labeling, sizing, and placement which makes use of the Mobile Enterprise client very easy to learn. Business Rules configured in CAD Enterprise are followed by all applications in the Public Safety Suite Enterprise.

Mobile Enterprise provides a flexible, customizable user interface using configurable buttons, forms, and function keys. Mobile Enterprise uses HTML, XML, XSL, and Java in the creation and configuration of the client screens and forms. This functionality will provide field users a highly user-friendly application which is configured to meet the County's business practices.

System Configuration Capabilities

CentralSquare Response:

Clients can configure current functionality within the CentralSquare products to meet their sitespecific work processes and needs. Configuration options are common throughout the Public Safety Suite Enterprise and include Records Enterprise data entry templates, workflow



processes, drop down lists, code tables, numbering formats, default entry values (e.g., force to all uppercase), 24- versus 12-hour clock, evidence locations, State and local statutes, and more.

Records Enterprise and the interfaces are implemented through a series of steps that are designed to ensure that the County's operational needs are determined, the configurations are prepared and validated, and the system/interfaces are tested for proper functionality prior to deployment.

CentralSquare has proposed a COTS solution for this deployment. To ensure that our highly configurable COTS applications are configured to meet the County's operational needs, our Business Analysts and Systems Engineering staff follows a standard process to collaborate with the County's team. As a result of this collaboration, CentralSquare's project team implements the appropriate configurations that reflect the unique needs of the County, as described in CentralSquare's responses to the requirements outlined in your original proposal.

CentralSquare defines customization as modifications made to the functionality of the software. These modifications are almost always made by CentralSquare personnel rather than a client's system administrator or local IT staff. Some customizations, such as State compliance to UCR and IBR reporting guidelines are often specified, itemized, and included in the price of the product. If customization work is desired and not included in the pricing quote from CentralSquare, the scope of the work and associated cost must be explored and discussed between CentralSquare and the County.

As a COTS solution, any customizations or modifications to the CentralSquare software will be incorporated in a subsequent release, which would then be included in upgrades as part of CentralSquare's normal release cycle.

Approach Regarding Legacy CAD/RMS System Data Conversion and/or Access to Legacy CAD/RMS System Data

CentralSquare Response:

CentralSquare has refined our data conversion processes over the past 27 years and has worked with every major information system vendor in the public safety marketplace. CentralSquare is uniquely qualified to convert the County's CAD and RMS data. CentralSquare has the technical and business application experts on the County's current Tiburon systems to facilitate a smooth and successful data conversion.

While data conversions may seem very straight-forward, CentralSquare's approach will vary depending upon the product line and data being converted, as detailed below. Participation and input from County staff during the data mapping and testing phases of the data conversion process is essential to ensure a successful data transformation.

CentralSquare's approach to converting legacy CAD data is to recommend a structured conversion of the select legacy CAD data for insertion into the CAD Enterprise database. CentralSquare recommends conversion of the most recent two years of CAD incident and event data; current CAD premise data; and current CAD caution note data.



The data conversion services begin with the development of a custom plan detailing the mapping schema for transforming the data from the legacy CAD system to the target files in the new CAD Enterprise system. The legacy data must be in documented structures that align to a corresponding structure in the target CAD Enterprise database.

CentralSquare's approach to converting legacy Records data is to use SQL templates to ensure the data converted into Records Enterprise conforms to the appropriate data quality standards and maintains its referential integrity. The template includes the most widely used fields and provides the greatest value for Records Enterprise users.

This process involves extracting data from the source system based on the appropriate SQL data template, and then importing the results into Records Enterprise. Since data is extracted into an SQL template and the source system data remains intact, the original source data is always available if any issues occur during conversion or there is any need to fall back to the original source data. The availability of the source data also allows the State to perform count comparisons and other measures of the source data against the converted data to ensure completeness.

Master Person, Master Vehicle, Master Property, and Master Location Indices as well as Arrests, Incidents, Warrants, and Evidence data types are typically included with all RMS data conversions.

Access to Legacy CAD/RMS Data

CentralSquare's recommendation is to convert the data into the native CAD Enterprise and Records Enterprise system databases. Other alternatives are possible. One such alternative is to copy the existing data into another SQL database where it can be accessed with commonly used third-party tools like SQL Reporting Services (SSRS) or Crystal Reports. The other alternative is to keep the existing applications running so that the data can be accessed, but this alternative requires additional, and often prohibitive, maintenance costs to keep the legacy systems active.



Support and Warranty Information

CentralSquare Response:

The following table outlines the services included in CentralSquare's Software Support Agreement and Subscription License and Use Agreement for CentralSquare.

No additional costs for updates and version upgrades	Updates and version upgrades for licensed CentralSquare software applications are provided as part of the annual software support and continuous upgrade fees. CentralSquare's Support Center team will work with the County to schedule upgrades for the CentralSquare software as they are released. Although there are no costs for the software updates/upgrades, if on-site resources are required, additional costs for travel and labor incident to the on-site support may apply.
National Support Center Staffed 24x7x365	Our National Support Center is always available to respond to Client calls according to the Priority matrix in the applicable Support Agreement. CentralSquare's National Support Center, located in Decorah, lowa, is dedicated to delivering excellence in customer service and has over 85 technical analysts on staff.
Unlimited Technical Support	CentralSquare provides unlimited telephone support during contracted calling hours.
Live Assistance	When using our toll-free telephone number, clients never receive an automated response during regular operating hours: clients speak directly with a trained Support Center technician.
Highly Trained Technical Analysts	Support Center staff consists of trained IT professionals with a wide range of certifications, including Microsoft, A+, and Cisco-certified professionals. Our technicians have extensive knowledge of commonly used technology, concepts, practices, and procedures and have completed rigorous CentralSquare product training, skill assessments, and routinely participate in continuing education events.
Remote Analysis and Support	Reported issues are diagnosed via remote connectivity. Complex problems are more easily reviewed and resolved by Technical Analysts taking a hands-on approach, minimizing the potential for miscommunication.



Customer Service Center Website	The Customer Service Center website provides clients with:
	 Knowledge Base: A comprehensive knowledge base with entries that cover CentralSquare software, operating systems, hardware, federal reporting requirements, state reporting requirements, and more. This knowledge base is always available for clients and internal technical analysts. Service Request Access: Provides up-to-theminute status on all service requests. Also allows clients to submit new service requests or research the status of new or historical tickets.
	Documentation: Download the latest version of all CentralSquare software documentation, including user and setup guides, articles, white papers, and notices designed to enhance productivity with the Public Safety Suite Enterprise.

CentralSquare's maintenance agreement includes:

- Unlimited telephone support for the licensed CentralSquare software, using a toll-free line provided by CentralSquare. During each term of the County's software maintenance agreement, this telephone support is available during the hours specified in the agreement (i.e., either 8x5 or 24x7 support).
- Initial fact-finding (Tier 1) support for third-party software embedded or used in conjunction with the application software (e.g., the embedded Report Writer, Microsoft products, etc.).
- CentralSquare will correct documented malfunctions in the CentralSquare application software based on the severity of the issue and how it impacts the County and CentralSquare's user base.

Updates and version upgrades to the current production version for the County's licensed CentralSquare software. CentralSquare will work with the County to schedule updates/upgrades.

CentralSquare's standard, limited warranty includes the following:

- 12-month warranty beginning at Go Live (live operational use of the system).
- 24x7 support for CAD Enterprise and Mobile Enterprise.
- 8x5 support for Records Enterprise and Public Safety Analytics Enterprise with an option to upgrade to 24x7 support for Records Enterprise.
- Guarantee that CentralSquare Software conforms to the applicable specifications of the proposed solution.
- Defect correction or software replacement.
- CentralSquare is the primary point of contact for support for all CentralSquare-provided components.
- Updates and upgrades to CentralSquare Software including modifications to meet requirements mandated by state and federal agencies.
- Seamless transition to annual support and maintenance program for the CentralSquare Software upon the end of the initial warranty period.



Section 2. Additional Information

CentralSquare's Mission

To Build Safer and Stronger Communities

CentralSquare's Commitment to Chatham County, GA

To provide the products and services Chatham County needs to keep your communities safe

Service and Support

"CentralSquare customer support is one of the primary reasons we're happy customers. It's the people behind the technology committed to making it work, and committed to seeking solutions or improvements, that matter. I feel like it's an extension of our team and our team is pretty limited – CentralSquare support has been great."

> Stephen Martini, Director, Williamson County TN Emergency Communications



Section 2.1 Exhibits

- Exhibit A Boulder Regional Emergency Telephone Service Authority (BRETSA) Case Study
- Exhibit B City of Dallas Case Study
- Exhibit C Pinellas County Sheriff's Office Case Study
- Exhibit D Northglenn, CO Client Testimonial



Exhibit A – Boulder Regional Emergency Telephone Service Authority (BRETSA) Case Study





Exhibit B – City of Dallas Case Study



<Exhibit B – City of Dallas Case Study, Pg. 2>



Exhibit C – Pinellas County Sheriff's Office Case Study



<Exhibit C – Pinellas County Case Study, Pg. 2>



Exhibit D – Agency Client Testimonial

Kathy Bailey, Records Supervisor, Northglenn, CO PD March 2019

User Experience:

"We love it! It makes it easy to champion the cause because we know what we've been able to do with it and it's just such a powerful product. It's fun to watch other people get excited when they see what you can do with the program."

Time Savings:

"The Records Enterprise customer module builder is super powerful, super powerful. We've eliminated multiple third-party programs by incorporating our field training, electronic ticket writer, animal control reports and code enforcement reports."

"With CentralSquare web-based Records Enterprise, our officers have access to it right in their cars. They write their reports throughout the day so that they are more timely and don't have to be completed back at the office at the end of their shift. With the drag-and-drop ability, officers can easily add anybody that they clear through the CAD system or through their MDTs and drag that name or vehicle into their report. The speed in which they can process people that they take into custody or write their reports has just been phenomenal; the time has significantly decreased, and they are spending more time on patrol and out in the community."

"The Records system collects everything in one case folder; it's already organized for you so you're not having to go to different sections of your system to find things; it's all in one neat package." By processing the citations electronically in the car, officers are entering the information directly into the web-based Records Enterprise system, which then eliminates the need for records and court staff to have to enter the data, as well as a lot of illegible handwriting and data-entry errors. As soon as the office enters the citations, it's instantly available in Records so if somebody calls in to ask a question or file a complaint about the ticket, it's already in the system and command staff can see. We also have an integration with our court systems which is automatically updated on a daily basis."

Interconnected Technology

"We use Records Enterprise and if you can imagine it, it can do it. We have were able to eliminate our FTO third-party system by incorporating our field training information in the records system which already has the CAD data, and now also the documentation and approval process all tied together so training officers are able to submit information throughout the day and avoid the 60-90 minutes of reporting time in the office at the end of their day. We also eliminated AI Pro and are using Records Enterprise for all of our Use of Force and Pursuit reporting—all in the same system which makes it easier for the sergeants to review, run queries and approve—or detect if the officer is starting to show patterns of behavior or if particular techniques are or are not working well. They have all the data at their fingertips and don't have to go to separate systems or to the Internal Affairs Sergeant to run a history."

