RESPONSE TO REQUEST FOR INFORMATION
SOLICITATION NO. 19-0062 CAD/RMS SYSTEM

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Prepared for

CHATHAM COUNTY, GEORGIA

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June 26, 2019

Submitted by:

PTS Solutions, Inc.
Harrisonburg, LA

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888.831.5151

Transmittal Letter

June 26, 2019

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

    RE: Solicitation No. 19-0062 CAD/RMS System

Enclosed please find the response to Solicitation Number 19-0062, CAD/RMS System, submitted by PTS Solutions, Inc. PTS is joined on this response by Geographical Technologies Group for mapping solutions. Thorough responses to the Request for Information are included, but if your team still has questions about our companies, products, or pricing, please let us know.

The main contact for this project will be:

        Staci Parrie
        Vice President of Sales and Marketing
        (501) 865-3554
        stacip@ptssolutions.com

We are committed to completing this project on time and on budget and will work with designated staff from Chatham County to reach this goal. We are committed to providing state-of-the-art software solutions along with exemplary customer service. We understand that our relationships do not end when the paperwork is completed, and the checks have been paid. Our relationships with our clients **BEGIN** at contract signing, **EXTEND** beyond go-live, and **CONTINUE** on for years to come!

We would appreciate the opportunity to provide these services for Chatham County. Thanks again for this opportunity to be considered as the vendor for this project.

Sincerely,

Dave Fuqua, President
(Authorized Binding Agent)
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888-831-5151 Tel - 318-744-5901 Fax
davef@ptssolutions.com

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Executive Summary

PTS Solutions

Professional and Technical Software Solutions, Inc. d/b/a PTS Solutions, Inc. (PTS) was founded in 1988. Since company inception, PTS has developed, enhanced, and supported a comprehensive software suite exclusively for the public safety sector. Through dedicated customer service, steady growth, and continual improvement and enhancement to its software suite, PTS clients now include over 230 agencies from 25 states, including 911 and emergency management agencies, sheriff and police departments, port police and security, government agencies including municipal, county, and state law enforcement and courts, and university campus police. PTS is a Louisiana company, with Operations headquarters based in Baton Rouge and Executive offices in Harrisonburg. PTS also has satellite offices in Georgia, Arkansas, and West Virginia.

Through the continued active leadership over the past 31 years of company founder and majority stockholder Dave Fuqua, PTS provides client service under consistent management, bringing exceptional stability that can be difficult to find in today's technology environment.

By remaining a closely held corporation, our Development, Implementation, Support, and Training divisions are not faced with the daunting task of piecemealing multiple software platforms together and supporting divergent systems. PTS offers a fully integrated, end-to-end solution, developed and supported in-house, that is modular and scalable to the client's needs. The robust feature set offered in PTS software products is designed with the client agency's daily operations in mind, and enhancements made to system are driven by client feedback.

Over the last three years and using the latest software architecture and technology, PTS has been committed to developing the PTS Platinum Suite, a major re-write of all core software modules and associated add-ons. PTS Platinum takes the concept of a commercial off-the-shelf solution (C-COTS®) one step further to a *customizable* commercial off-the-shelf solution that is configurable around the agency instead of the agency adapting to the software. In addition, PTS is a Microsoft Gold Level Partner.

Because several key PTS management and personnel have prior law enforcement and public safety experience, PTS brings a first-hand perspective when recommending a software solution. Additionally, most PTS projects involve interfaces of multiple types because PTS works exclusively in the public safety sector and must frequently interface with other systems already in place. PTS has years of experience in developing both one way and bi-directional interfaces for use across all PTS core modules, including CAD, Records Management, Jail Management, and Mobile Data.

From this wide range of experience in servicing the needs of public safety agencies across a diverse client base, PTS knows the importance of first listening to the needs of the agency and then

working with the agency hand in hand to deploy a solution set up with that agency specifically in mind.

Geographic Technologies Group

Geographic Technologies Group, Inc. (GTG) is one of the country's leading full-service local government GIS consulting companies. GTG's corporate headquarters is located in North Carolina, with regional offices in Florida and Texas. GTG has secured state, national, and international awards for software solutions and consulting services. Incorporated in 1997, GTG has a history of providing superior GIS solutions and support to organizations throughout North America. Conceived and organized specifically to assist local government with planning, designing, and building award-winning GIS solutions, GTG understands that GIS is not an add-on discipline; it requires a comprehensive and planned approach.

GTG offers an inclusive and insightful understanding of local government operations and has a cadre of experts representing all areas of local government: Public Safety, planning, infrastructure, land management, and information technology. GTG has worked with local governments across the United States and Canada to evaluate existing practices and design optimum GIS solutions specific to Public Safety solutions.

GTG is the leading local government Esri expert. We were the first Esri Business Partner to achieve the following distinctions, Esri Gold Partner, Esri ArcGIS Online and the ArcGIS for Local Government specialties. As a group of Esri technologists, we are experts in ArcMap, ArcCatalog, ArcToolBox, Advanced Editing, COGO, Maplex, ArcGIS Server, and Spatial Data Engine (SDE). Our team works with Shapefiles, Coverages, Person, File, and Enterprise Geodatabases. We have extensive experience with Esri's Spatial Database Engine (SDE) to include versioning and are Microsoft SQL experts and a Microsoft Gold Partner.

Functionality Information

CAD/Mobile/RMS System Integration

The PTS software suite is designed to work as a fully integrated, comprehensive, end-to-end system. PTS Platinum Suite, including client, server, and middle tier, was developed for Microsoft Windows in C# using Microsoft .Net, specifically their Windows Presentation Foundation (WPF) platform with a Microsoft SQL Server back end. All communication is managed through Microsoft Windows Communication Foundation (WCF) secure web services.

The system uses one security module to set all security privileges, and users have different levels of access to this module based on permissions. Permissions are granted based on the profiles assigned to a user. Profiles are made up of one or many roles, and permissions from individual roles are combined to create an overall set of permissions to the profile.

PTS standard installation involves several databases; however, all tables could be installed into a single database. Each application is programmed to connect to the correct database and table to retrieve the appropriate information needed for the data being viewed or managed. The applications are designed in such a way that data is shared across multiple databases.

All media files are held within a separate database and are accessed from links in the main database using file stream. For ease of data exchange and sharing among various agencies now or in the future, the system supports the Global Justice XML Data Model (GJXDM), a subset of the National Information Exchange Model (NIEM). The system is secured by utilizing the latest Criminal Justice Information Security (CJIS) policy published by the US Justice Department.

The Vantage Points Applications can be configured to query multiple databases depending on setup and configuration. Vantage Points applications are configured with an ODBC/ OLEDB database connection to view and query any database platform.

Functionality of Each Major System (CAD, Mobile, GIS/mapping, Law Enforcement RMS)
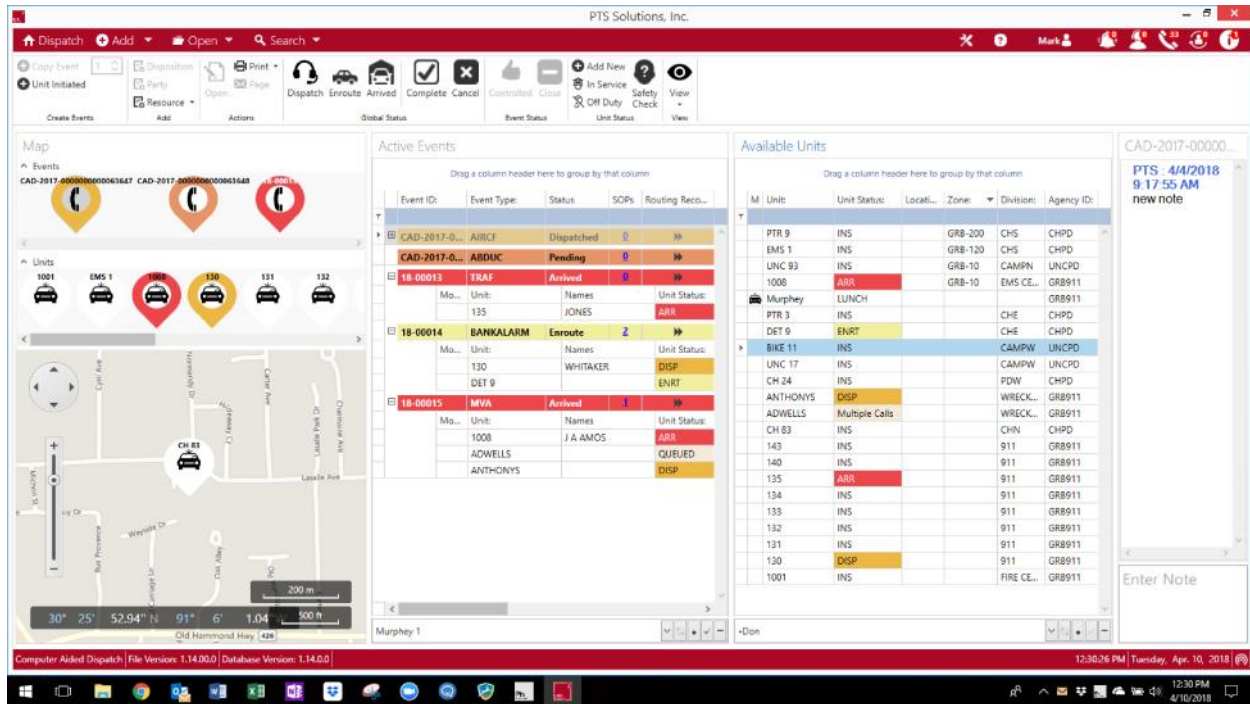
PTS Platinum CAD

PTS Platinum CAD is a state-of-the-art, customizable commercial off-the-shelf (C-COTS®) system that is easily configurable around the agency's policies and procedures and the end user experience. Platinum CAD offers the agency an expansive set of customization tools, including:

- Layout configuration
- Designating mandatory fields that require data entry
- Removing fields unused by the agency
- Customizable user interface based either on user preference or agency standard

⟩ Editing field names
⟩ Powerful permissions and roles functionality

PTS Platinum CAD simplifies the process of Computer Aided Dispatching for 911, fire departments, law enforcement agencies, and other emergency services and public safety entities. Primary features included with this state-of-the-art software include multi-agency dispatching, resource recommendations, SOPs, BOLOs, event scheduling, shift management, and unlimited rotations. The Platinum CAD solution to be implemented in this project includes NCIC functionality within the module which eliminates the need to navigate to a separate executable.

PTS Platinum CAD also offers map-centric dispatching functionality through Microsoft Bing map which is fully embedded within the software. All dispatching functions can be accomplished through the map. Depending on dispatcher preference, the map can be undocked from the dispatch screen and moved to a separate monitor or disengaged entirely.

GTG Vantage Points Mapping

GTG offers a wide variety of public safety GIS software solutions. All GIS mapping software solutions are based on the industry standard Esri mapping technology platforms. GTG's latest software offering is the Vantage Points software suite which is based on Esri's latest ArcGIS Server technology.

Vantage Points is an ArcGIS for Server based solution and offers numerous benefits such as:

- Built on Esri's latest ArcGIS Server technology platform with or without the need for ArcGIS Server
- Centralized administrator management console for all software
- Simple to use, intuitive viewer mapping interface for end-users
- One mapping interface for all users throughout the enterprise with additional functionality provided via plug-in modules on the server (i.e. dispatch, crimes, AVL, routing)

) Ability to restrict access to functionality and mapping configurations via Windows Active Directory Security Groups
) Use of GIS datasets

The Vantage Points software suite can be easily expanded to the functionality via add-on software modules and the licensing can be increased by simply adding an updated license file key. The new software modules and increased likening can often be installed or updated with no or minimal disruption to the end users.

Vantage Points Core Viewer

The Vantage Points Core Viewer is a powerful viewer application that allows a public safety agency to easily query and analyze GIS and public safety data. The Viewer was developed over time with insight gained from visiting more than 400 public safety agencies nationwide. These organizations needed a toolset that was focused on their specific needs and was able to leverage their existing IT and GIS investments. Vantage Points Viewer is perfectly scaled and designed for the end user and provides a set of GIS tools in a simple-to-use desktop application. Some of the tools include:

) Portal setups and configurations to meet the specific needs of various public safety agencies;
   o Police, Fire, EMS, Crimes Analysts, Administrators;
) Automatic Mining of Data from Any Police, Fire, or EMS Record Management System and CAD system;
) Quick Map Creation using standard Esri GIS data sets;
) Hot Linking of Images, Pre-plans, School Layouts, and Hazard Material Data;
) Integration with AVL, Routing, and Pictometry;
) Parcel information;
) Building footprints;
) Aerial imagery;
) Address look ups;
) Intersection finder;
) Pan and zoom;
) Dynamic labeling and rendering;
) Simple creation of pre-defined searches, queries and reports; and
) Map Tips.

Vantage Points Dispatch Mapping

Vantage Points Dispatch is a Computer Aided Dispatch (CAD) mapping interface that provides E-911 dispatchers with an interactive map displaying the location of all emergency calls. Vantage

Points Dispatch uses the latest and most innovative technology to connect to CAD data and provides a simplified setup and administrative interface.

The Vantage Points Dispatch software module expands the functionality of the core viewer to offer the following key expanded capabilities:

- Live Display of Call Locations;
- Phase II (wireless) Compliance;
- Dispatcher Entry of Special Events to Display on the Map;
- Historic E-911 Call and AVL Mapping;
- AVL, Pictometry, and Google Street view functionality are also available in the dispatch mapping interface;
- Hot Linking of Images, Pre-plans, School Layouts, and Hazard Material Data Address look ups;
- Intersection finder; and
- Intuitive Administration Package for Configuration and Setup.
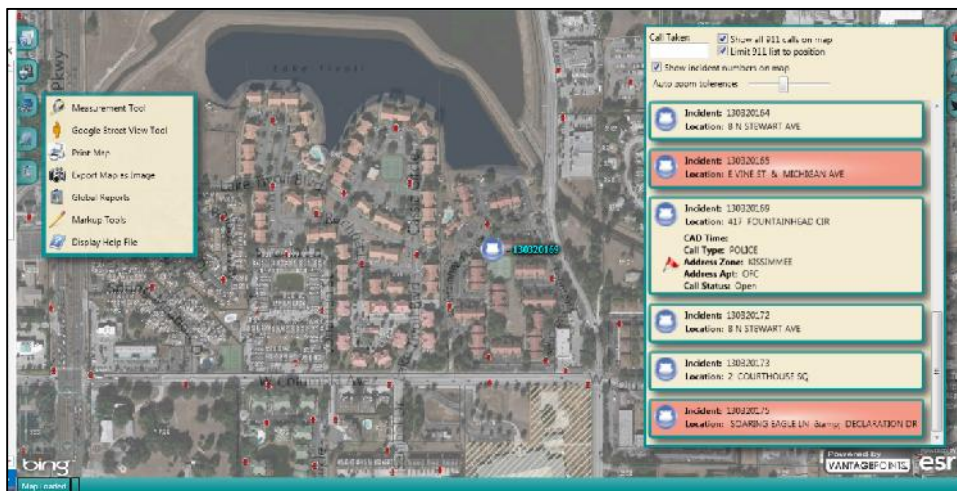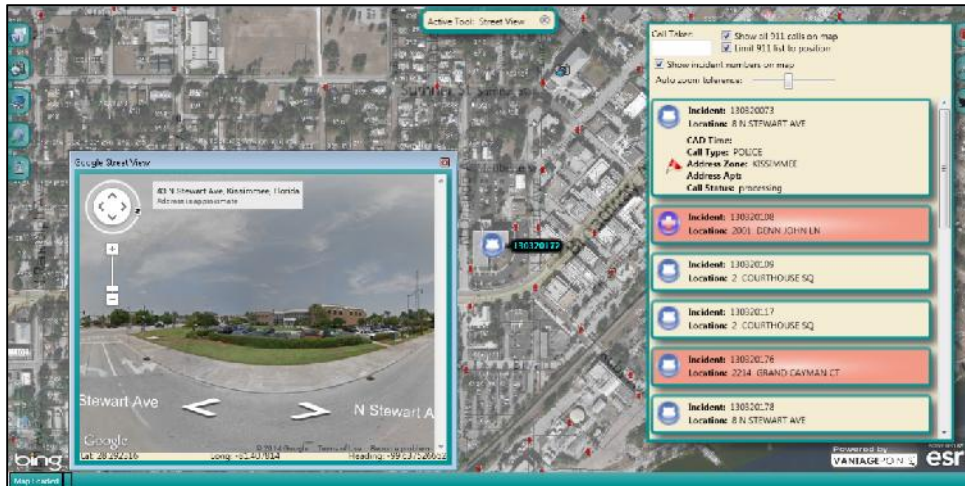
PTS Mobile Data

PTS Mobile Data software offers a greater flow of data to and from dispatched agencies. A true mobile solution does more than track an officer's location. By combining PTS Platinum CAD with PTS Mobile, field units will receive the same information that is available to the dispatcher from the call for service, and information sharing is bi-directional between dispatch and the field units.

Integrating PTS Mobile reduces redundant verbal re-queries via radio by units attempting to verify addresses, call types, or other information about the call for service, leaving the dispatcher able to focus more on the caller and obtaining additional information for the responding units. Officers within the same agency or wider groupings see which other units are dispatched and their statuses, improving safety, efficiency and response to the call for service.
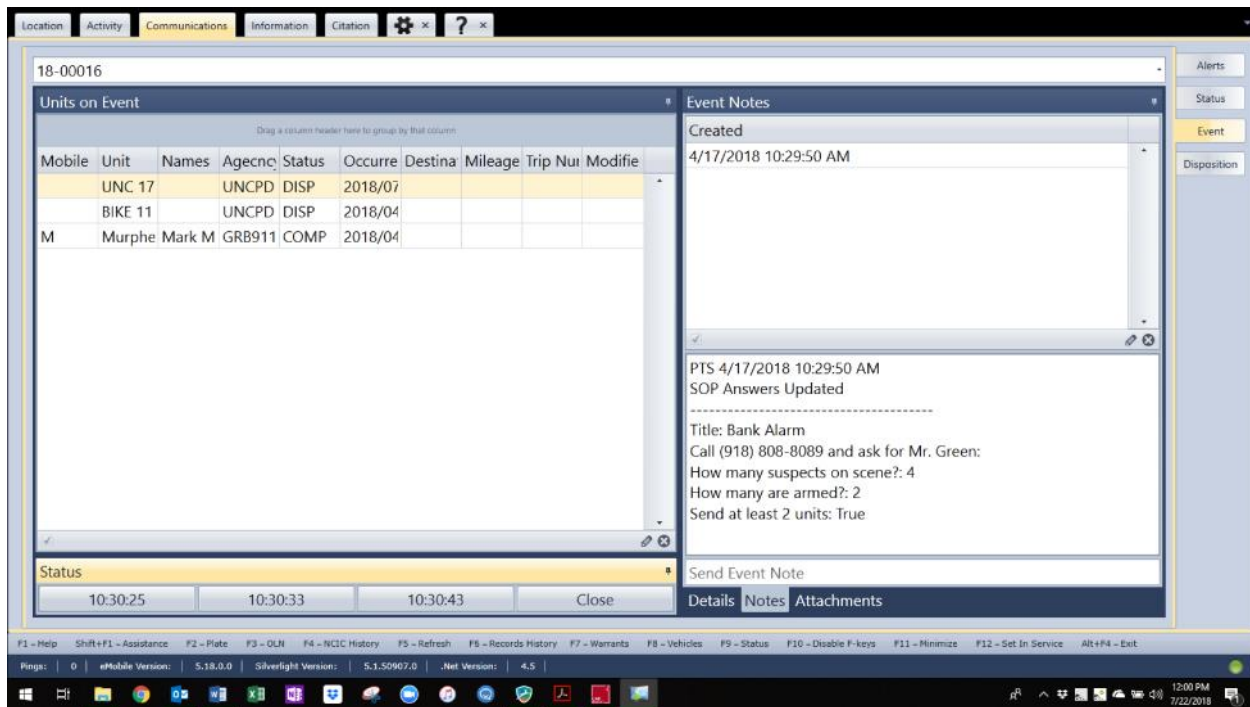
Officers can query the master name index, run tags, licenses, warrants, item checks and more from the unit with in-unit NCIC queries. This information is returned automatically and can be run against department, state, and national databases without involving dispatch, making it faster and safer for the officer on the street. The information sent and received is more secure than the radio providing scene security, and more accurate information transfer, reducing errors caused by misheard information.

Vantage Points CAD Mobile Mapping

Vantage Points Mobile is a Computer Aided Dispatch (CAD) mapping interface that provides first responders with an interactive map displaying the location of all emergency calls, AVL feed, and GIS base map data. Vantage Points Mobile uses the latest and most innovative technology to connect to CAD data and provides a simplified setup and administrative interface.

The Vantage Points Mobile software module expands the functionality of the core viewer to offer the following key expanded capabilities:

- Live Display of Call Locations;
- Phase II (wireless) Compliance;
- Historic E-911 Call and AVL Mapping;
- AVL and Routing functionality are also available in the mobile mapping interface;
- Hot Linking of Images, Pre-plans, School Layouts, and Hazmat Data Address look ups;

⟩ Intersection finder; and

⟩ Intuitive Administration Package for Configuration and Setup.

Vantage Points AVL

The Vantage Points Automated Vehicle Location (AVL) module allows for the enterprise ability to track and locate GPS-enabled vehicles and assets within an organization. Vantage Points AVL offers users the ability to group assets, such as street sweepers, police vehicles, and utility vehicles, etc, with customized symbols for each asset group. Vantage Points AVL also offers the

convenience of viewing and storing the history and locations of assets. Vantage Points AVL offers an array of benefits, including:

- Ability to track enterprise assets
- Ability to group assets
- Ability to see all or just selected vehicle locations on map
- Store and view history of asset locations
- Track a specific asset
- Customized symbols for asset groups
- Map tips to show vehicle ID, status, etc.
- Only users authorized via Active Directory can view AVL information in their interface
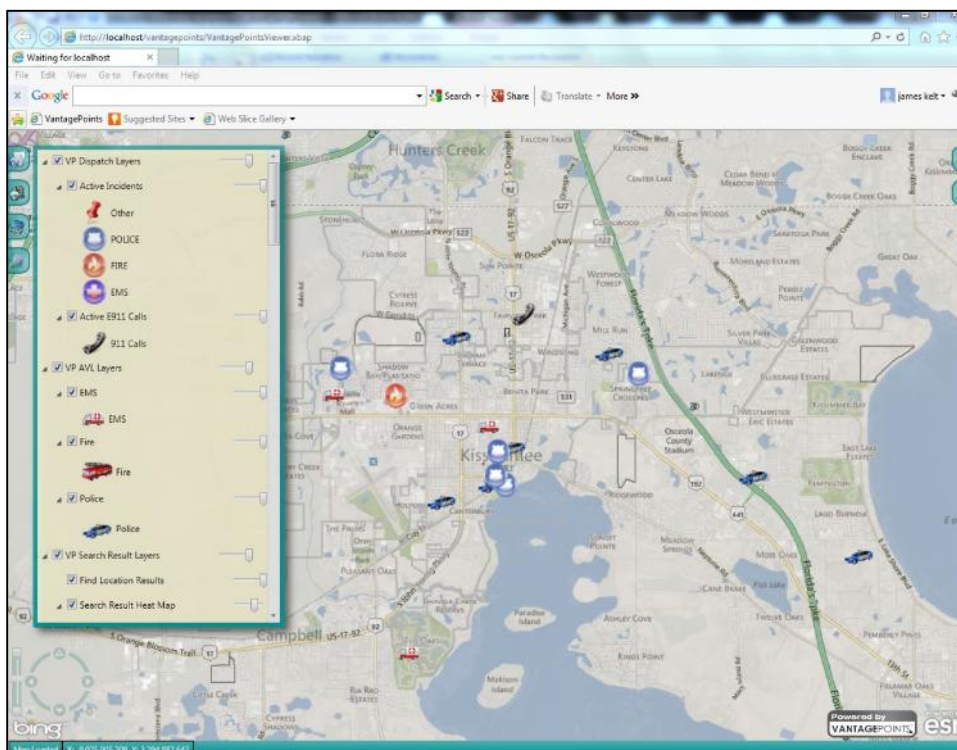
PTS Platinum RMS

PTS Platinum Records Management Solutions is a powerful and customizable system designed to allow agencies to dictate policies to the software rather than forcing the agency to define procedures based on the software. PTS Platinum RMS offers the agency the tools to build out agency definable incident workflows with robust agency-based incident reporting capabilities.

PTS Platinum RMS simplifies the process of incident reporting with step-based wizards and annotation style markup abilities for providing feedback throughout the workflow process. Platinum RMS features NIBRS based reporting with real time validation throughout the incident wizard.

PTS Platinum RMS offers the User multiple, customizable views to track working Incident Reports, Scheduled Training, Vehicle Maintenance, and the types of Incident Reports the officer is working. Available from any view is easy access to all data collected in the course of the agency's activities, including People files, Address files, Vehicle files, Warrants, and more.

Data Analytics is accessible providing quick reporting on agency activity: types of offenses reported, Incidents by day of week, hour of day, month of the year, among others.
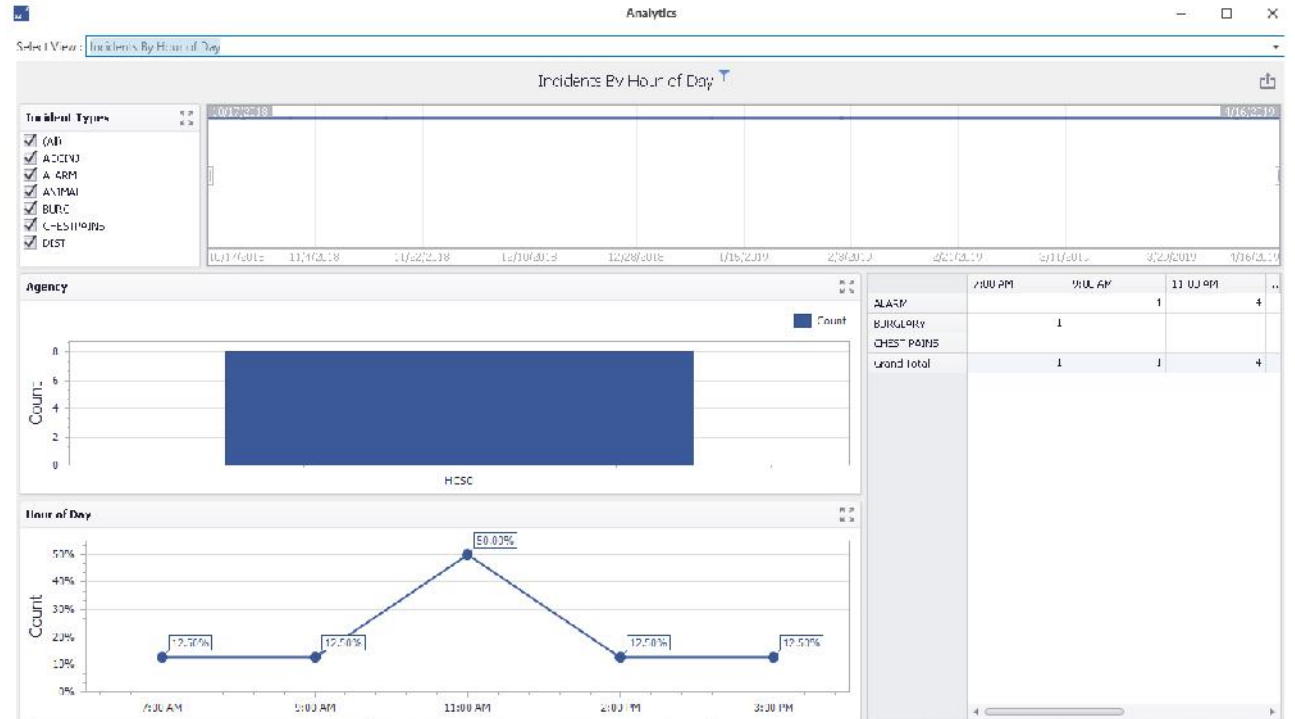
PTS Managed Services

While not required, PTS can provide both server hardware and maintenance through PTS Managed Services. PTS Managed Services includes system hardware with a three-year on-site warranty, automated server management, anti-virus monitoring, Windows patch management, and Acronis cloud backup.

Modules of Each Major Application

Component	Proposed Module Solution
Computer-Aided Dispatch Software	PTS Platinum CAD Solutions E-911 Interface Integrated Microsoft Bing map
State Interface Software	NCIC Integration
CAD Mapping Software	GTG Vantage Points Dispatch
System Servers (primary and backup)	PTS Managed Services (optional)
Mobile Data and AVL	PTS Mobile Data with AVL
Mobile Mapping and AVL	GTG Vantage Points Mobile with AVL
Records Management	PTS Platinum Records Management
Field Reporting	PTS RMS Field Reporting

PTS offers a full software suite to meet the needs of any 911 Center, Sheriff's Office, Police Department, or Court. Expansion software components which can be included in project deliverables upon request include:

Component	Proposed Module Solution
Jail Management	PTS Platinum Offender Management
Analytics	PTS Analytics and/or Link Analysis
Investigations	PTS Detective Case Management
Evidence	PTS Evidence Management
E-Citation	PTS E-Citations Mobile Expansion
Fleet	PTS Fleet Management
Document Solutions/Paperless Management	PTS Virtual Filing Cabinet
Court	PTS Court Management
Personnel	PTS Personnel and Training
Probation	PTS Probation Registry
Inventory	PTS Inventory Management
Interfaces to Third-Party Solutions	PTS Custom Development
Crime Mapping	GTG Crimes

Technical Architecture Information

) Uptime

If using a failover architecture, uptime should be 99%.

) Dependability and Performance

If the agency decides to utilize a SAN backplane with Hyper V, we can have 3 break points in the failover before the system goes down. This will require at least 2 physical servers, 3 switches, and a SAN with dual RAID controllers.

) Continuity of Operations/Hot Fail-Over

If the agency decides to utilize a SAN backplane with Hyper V, we can have 3 break points in the failover before the system goes down. This will require at least 2 physical servers, 3 switches, and a SAN with dual RAID controllers.

⎰ Disaster Recovery

PTS proposes a Hyper V or VMware failover solution for Chatham County. We would utilize two Hyper V or VMware servers in a failover mode for the SQL and file servers. We would also utilize Acronis cloud backup for disaster recovery in the event of hardware failure or a ransomware attack.

If the agency decides to utilize a SAN backplane with Hyper V, we can have 3 break points in the failover before the system goes down. This will require at least 2 physical servers, 3 switches, and a SAN with dual RAID controllers.

System Interface Information

From being in the public safety software sector for over 30 years, PTS has extensive experience in developing both one way and bi-directional interfaces for use across all PTS core modules, including CAD, Records Management, Mobile Data, and Offender Management. Every PTS project includes third-party interfaces to other software platforms already in place, so any required interfaces, including federal/state/local databases and third-party applications already in place, can be addressed and implemented in the required timeline. Any interface that requires new development can be written by PTS' in-house development team. PTS is always willing to work cooperatively with any other software vendor in any way that will benefit its customer.

Chatham County Sheriff's Office currently uses PTS Platinum CAD and GTG Vantage Points mapping, and as part of that project, PTS developed a custom interface between Platinum CAD and a third-party Mobile Data product which was already in place.

System Dashboard and Reporting Capabilities

Pre-formatted reports are built into each of the core modules to meet the general needs of users of that module, such as Events by Day of Week, Hour of Day, Month, Year, etc. The PTS Platinum applications provide for in depth sorting, filtering, and querying of data and provides the ability for this data to be reported, printed, or exported using various methods such as PDF, Excel, XML, etc. The data is stored in SQL Server which provides additional data reporting methods and is accessible using various 3rd party applications such as Crystal Reports, MS Access, etc.

Additionally, the PTS Platinum suite is equipped with robust ad-hoc reporting capabilities that permit users to create innumerable varieties of on-demand reports.

GTG Vantage Points leverages Report One which is embedded in the software. Reports are completely customizable and configurable.

System Configuration Capabilities

Over the last four years and using the latest software architecture and technology, PTS has been committed to developing the PTS Platinum Suite, a major re-write of all core software modules and associated add-ons. PTS Platinum takes the concept of a commercial off-the-shelf solution one step further to a *customizable* commercial off-the-shelf solution (C-COTS®) that is configurable around the agency instead of the agency adapting to the software.

The Platinum suite allows for complete customization of data collection forms including field labels, field order, and location of fields on the form as well as identifying mandatory fields. The system also provides for sorting, filtering, and grouping of data based on agency and/or user requirements. Other key customization features include:

- Layout configuration
- Removing fields unused by the agency
- Customizable user interface based either on user preference or agency standard
- Editing field names
- Powerful permissions and roles functionality

If an agency is interested in taking a highly active role in development and enhancements, PTS has established a Client Focus Group for each of our products. The groups meet for about an hour once a month via online webinar review potential enhancements and to review what is being developed in the upcoming releases and to provide feedback as to the look, design, feel and functionality of the system. For PTS, this collaborative effort is designed to provide the best possible product to our existing customers and beyond. For those involved as members of the focus group, it is an opportunity to provide input for the software.

For a more basic enhancement process, PTS Support utilizes a Service Request program to log and track enhancement requests. This system documents all issues reported to us by clients. Priorities are initially supplied by the client and can be manually upgraded by our support team as needed. High priority enhancement requests are considered and approved by the Vice President of Operations. Emails are generated from the system and forwarded to our staff and to your designee when updates or changes are made to your service request or when an update is available.

For GTG, customers can inform their project manager for enhancement requests which are reviewed and decided upon by executive staff and the development team.

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

PTS has years of experience with a wide range of data conversions from various software platforms, database types, and programming languages. Because the vast majority of public safety agencies have used software-based systems over the past 20 years, each software replacement project will almost inevitably involve either a bucket-to-bucket data conversion (which is required in this project) or establishing some type of data archive or historical database.

As soon as possible after contract signing, PTS will need copy of the legacy data for evaluation by the PTS Development team to prepare a specific procedure and process timeline. The County will be responsible for defining each of the data elements to be converted. A member of the PTS Development team will work directly with personnel designated by the County familiar with how data is currently used and what it looks like. Together, our teams will determine what data belongs where.

In a traditional data conversion, the conversion may not provide an exact match-up since the two software systems may not have commonly named data fields. PTS will match data fields between systems as defined by the client as closely and completely as possible. When a named field does not exist, and when the agency agrees we have exhausted other possibilities, PTS will use a general note field to store the necessary data.

Once our combined team has identified the required fields to be converted, PTS will begin the conversion process. After an initial conversion, PTS will work with your designee to complete a review of the conversion of the data with a point by point process to determine types of data, number of records, and other points of concern as defined by the team have been successfully converted. PTS will use feedback by your team member to determine if a secondary or subsequent round of error correction and reconversion is required. After each such conversion and error correction process, our combined teams will reevaluate the data and the need to explore additional measures in the conversion process.

PTS has 3 methods of determining duplicates- first by Social Security number, and then by State OLN. If those do not exist, we use first name, last name, date of birth, race, and sex. Once duplicates have been determined, the conversion process will combine those records into one master name record.

Support and Warranty Information

PTS Technical Support provides 24/7/365 telephone support for all clients (via a toll-free 888 number) with a guaranteed response time of 2 hours. Reported issues are triaged to initially determine if the issue can be handled with a first call resolution. If the issue persists beyond the initial call, it is routed to the Tier 2 Technical Support team for evaluation and troubleshooting. If not resolved at this stage, the issue is forwarded to the Technical Support Manager for further evaluation. Other areas of PTS' Baton Rouge Operations, including Development and Training, may be consulted depending on the nature of the issue. Once diagnosed, the issue is categorized by type, such as enhancement request or defect, and resolved accordingly. Any "system down" situation is automatically escalated to the highest priority status.

PTS provides training manuals for both administrator level and user level functions. We also provide many instructional videos through the MyPTS client-access only section of our website. These videos are organized by module and are clearly labeled for the specific functionality the video describes.

PTS also provides additional client help resources and ongoing educational opportunities These resources include:

) Webinar training;
) MyPTS Online Help Center, a client-only section of PTS' website which houses pre-recorded how-to videos, a repository of product manuals and software release notes, and other documentation and resources;
) Weekly webinar series covering short training topics, walkthroughs, targeted support, and general module overviews;
) MyPTS Online Help Center; and
) User Group, PTS' annual conference which features a combination of group presentations, hands-on training and experience, and one-on-one summits with key PTS personnel.

PTS also provides additional on-request services beyond what is included in annual support. IT services, such as server migrations, are routinely handled by PTS System Engineers. Custom programming services can be provided upon special arrangement. These services are negotiated with clients and invoiced separately.

The PTS software proposed includes a one-year warranty from the time of project acceptance. GTG's Vantage Points software includes a one-year warranty from the time of project acceptance.

GTG will provide documentation for the end-user and administration features and functions of the Vantage Points products. Each document is linked within the software and can be printed in PDF format. Interactive training using the clients existing environment is also available via web connection to assist in explaining the help file documentation.

GTG standard software maintenance agreement provides software updates, upgrades and technical support for GTG's software applications installed at the client site.

Items covered under GTG's Standard Software Maintenance Agreement include:

-) Routine software updates, software patches and software upgrades to provide software fixes and enhancements as released by GTG
-) Upgrades to major new versions of the software releases (additional license, implementation and training fees may be required to upgrade to some new software version releases)
-) 24/7 Telephone, E-mail and Remote Technical Support for issues related to the GTG software. The telephone call support center is staffed from 8:00am- 5:00pm EST; Monday – Friday. After-hours support calls are redirected to an after-hours on-call support team. After-hours support can also be arranged upon request in advance.
-) Telephone, e-mail and remote assistance with understanding basic functionality specific to GTG's software applications for clients that have been trained in the administration and use of the software application
-) Assistance with diagnosing and correcting software-related issues directly related to GTG's software applications
-) Updated manuals, documentation, training materials as available.