Original

A SOLUTION PROPOSAL FOR:
Chatham County, Georgia

Request for Information #19-0062
CAD/RMS System

PRESENTED BY:
Tyler Technologies

June 28, 2019

Tyler Technologies, Public Safety Division, 840 West Long Lake Road, Troy, Michigan 48098
248-269-1000 · www.tylertech.com

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- Response to the Functional Requirements, or “Checklist”
- Line-item pricing (total proposed contract amount may be disclosed)
- Screen shots
- Customized Statement of Work/Implementation Plan

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June 28, 2019

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

Dear Ms. Joyner:

Tyler Technologies is pleased to provide our response to Chatham County's Request for Information 19-0062 for a CAD/RMS System. Tyler's New World public safety software has been making communities safer for 35 years with its proven, fully integrated solution suite.

Further to the information contained in this response regarding our New World solution, it should be noted that Tyler is in the process of building out full integration between the Odyssey Courts suite and New World. When complete, this solution will be the industry's only truly integrated justice platform. It will further eliminate redundant entry across agencies and maximize efficiency and officer safety for all the public safety agencies of Chatham County.

Should the County have any questions regarding our response to your RFI, please contact:

Craig Campbell, Account Executive
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(770) 252-4783
Craig.Campbell@tylertech.com

Tyler can provide a successfully proven and low risk approach that will allow the County to quickly achieve the goals set forth for this project. We look forward to working with you as you consider the options for this upcoming project and release your RFP. We firmly believe that the Tyler solution will combine the product, the experience and the approach to fully meet the project's goals.

Sincerely,

Greg Sebastian
President, Public Safety Division

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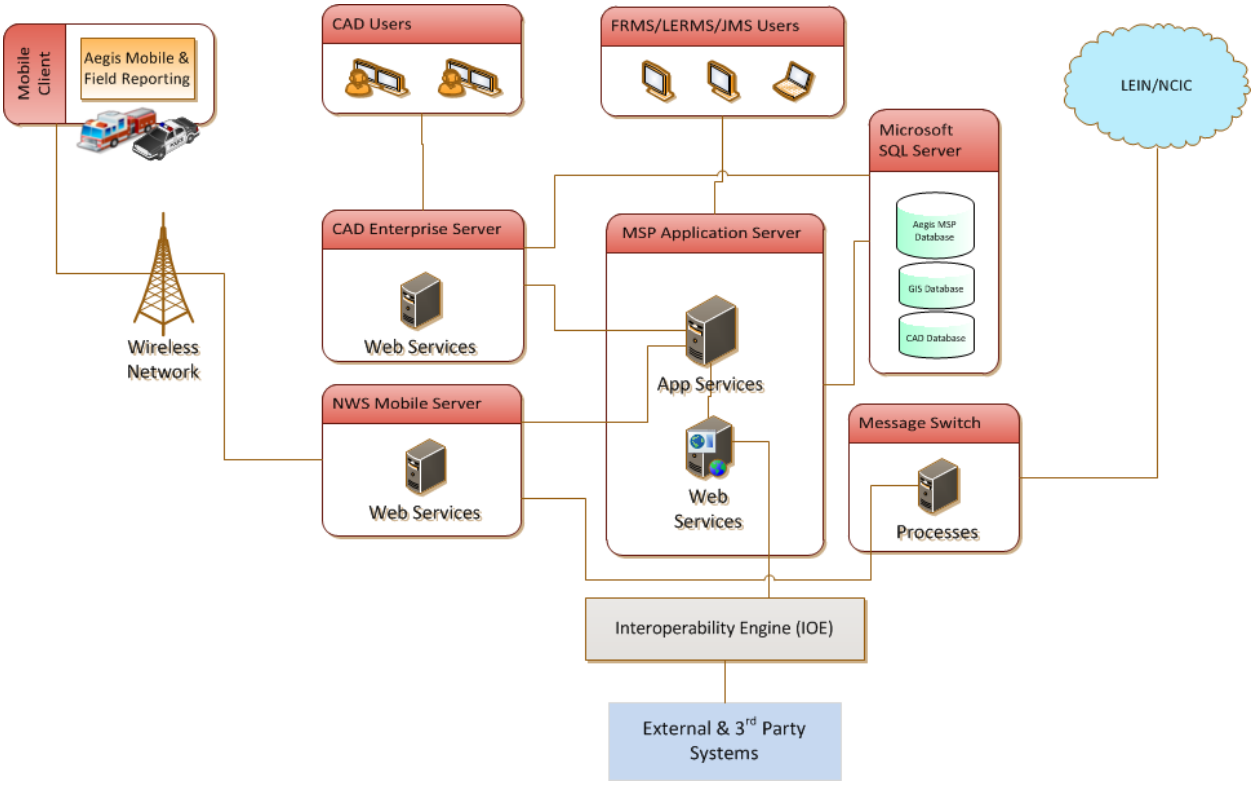
1. System Overview and Modules

Integration

Tyler has always believed that integration, common processes and shared information provide the most value to agencies and results in successful implementation. As a result, all applications are architected to be part of the overall integrated solution suite.



Architecture Overview

Multi-jurisdictional and multi-discipline operations are part of the system architecture. All records include the appropriate agency ID (ORI/FDID). Security and application processing is then built on top of this data structure so agencies can share or restrict access as needed.

This integrated architecture provides seamless processing of shared information using standard Windows technology. Users do not have to re-enter the same information multiple times with the seamless master (global) files. The database is built using industry standards for performance and data can easily be exported using public safety standards (NIEM, NEMSIS, NFIRS, N-DEX, etc.) The database metadata is easily accessible with standard Microsoft technology or third-party tools, and the New World reporting tools provide end users with the means to produce ad hoc reports, mapping, and analytics without mastering a third-party application.

Global Files

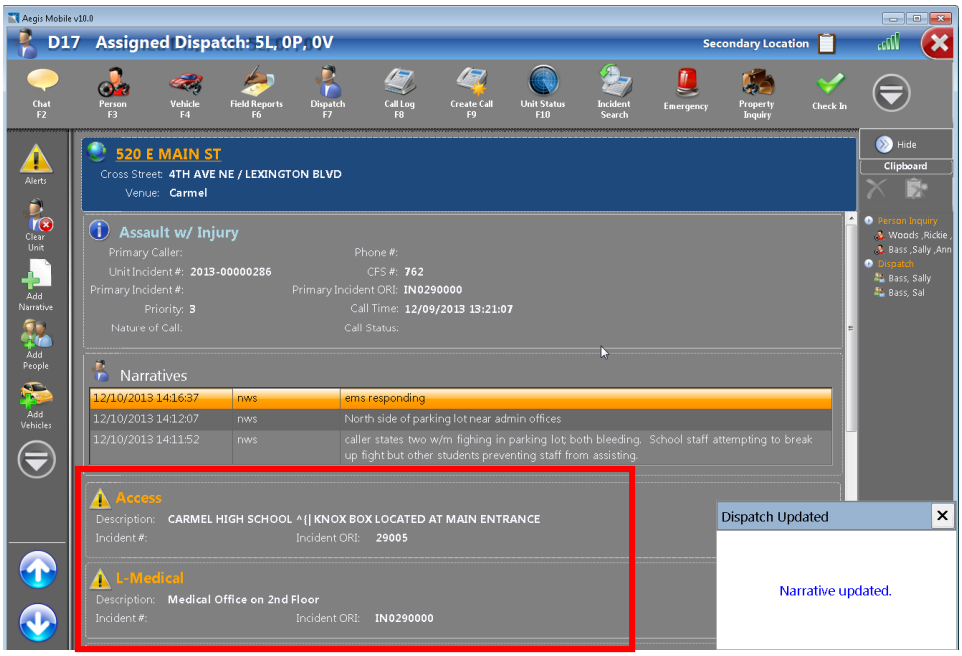
People and Businesses, Buildings, Alerts and Hazards, Vehicles, Guns, Property, Locations and Personnel are all global master files. Updating any master file results in all product areas instantaneously being able to access the most current information. Field-Level Auditing provides a historical reference for any inquiries, additions, or changes.

Inquiries over the master files allow for partial and wild card searches. Filterable grids make it easy to arrange resulting records and focus on key information.

The alternative to a single database, common master file approach is problematic on several fronts. First, users may have to perform multiple searches to get all key information. Busy disciplines do not have time to do multiple searches. Second, disparate systems rarely have the same underlying data schema. As a result, the user must look up different codes and process different screen layouts and formats. A disparate solution approach puts more burden on the user. For more details on global subject processing, see the end of this document.

Alerts

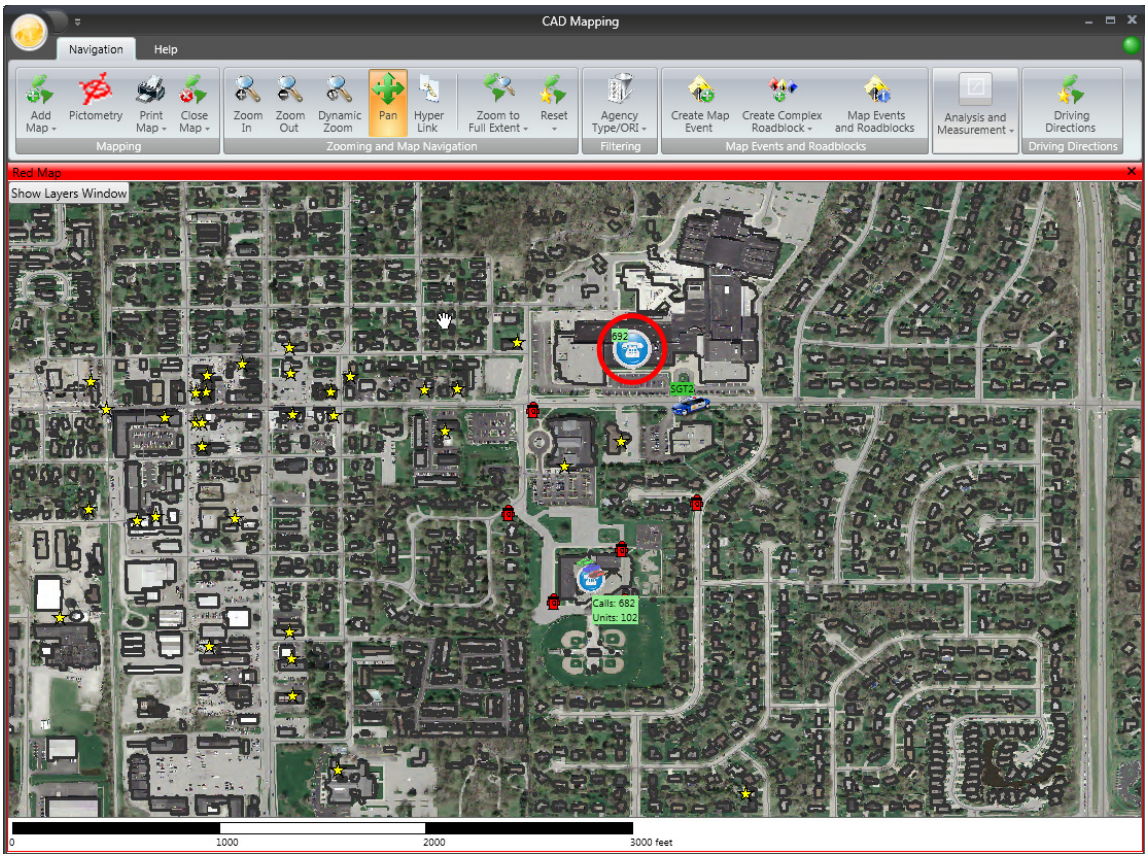
Alerts are a key area where integration is a differentiator. New World's integration allows an alert to be displayed throughout the system automatically. All alerts are available to end users of the system, enhancing both officer and public safety. This suite-wide integration allows an alert placed on a location, person, business, building, or vehicle. Specific Alert types are automatically assigned in New World applications as well as agency defined alert types which can be created based on your specific needs. Disparate applications interfaced together lack this capability. For example, an officer on a routine stop may run a subject inquiry and see that the person is the suspect in a recent case report. Not only does this enhance officer safety but it allows officers to address any interaction with more information.



Mobile Alerts are automatic from the dispatch

Mapping

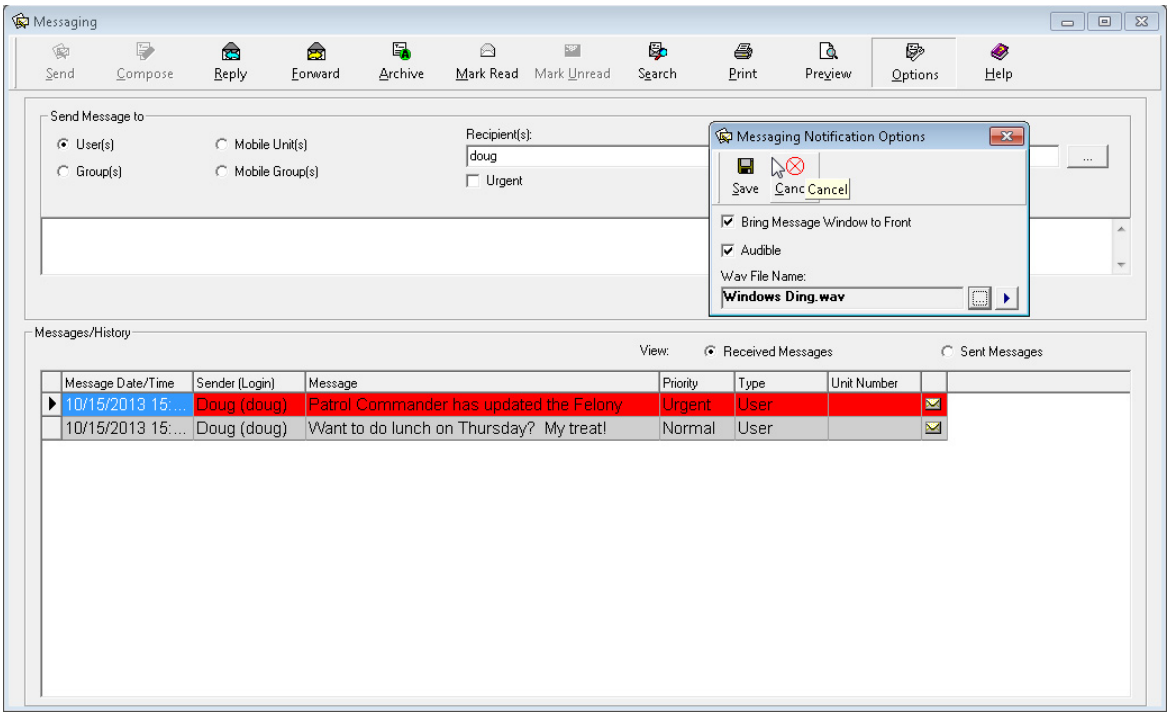
New World's Public safety suite uses ESRI technology for all location verification, reporting and mapping functions. We utilize the ArcGis Server Enterprise Standard (SDE) for our mapping solution. Our solution architecture of a central GIS database means there is one place for all GIS maintenance. When this geo-database gets updated, everyone on the system immediately gets the benefits. Mapping hyperlinks provide another option for real-time information sharing across the suite. A building may be identified as a hazard by fire service with additional photos or other inspection information. The common GIS architecture supports attaching this information to the map where it displays as a hyperlink for the user.



CAD Mapping leverages existing GIS information – showing hydrants near a CFS

Messaging

Messaging – The entire New World suite shares common messaging components. Users can send messages to anyone with a user ID including CAD, LERMS, FRMS, and Mobile. New World users can send urgent messages which are delivered with a visual cue (red highlighting) to catch the attention of the message recipient.



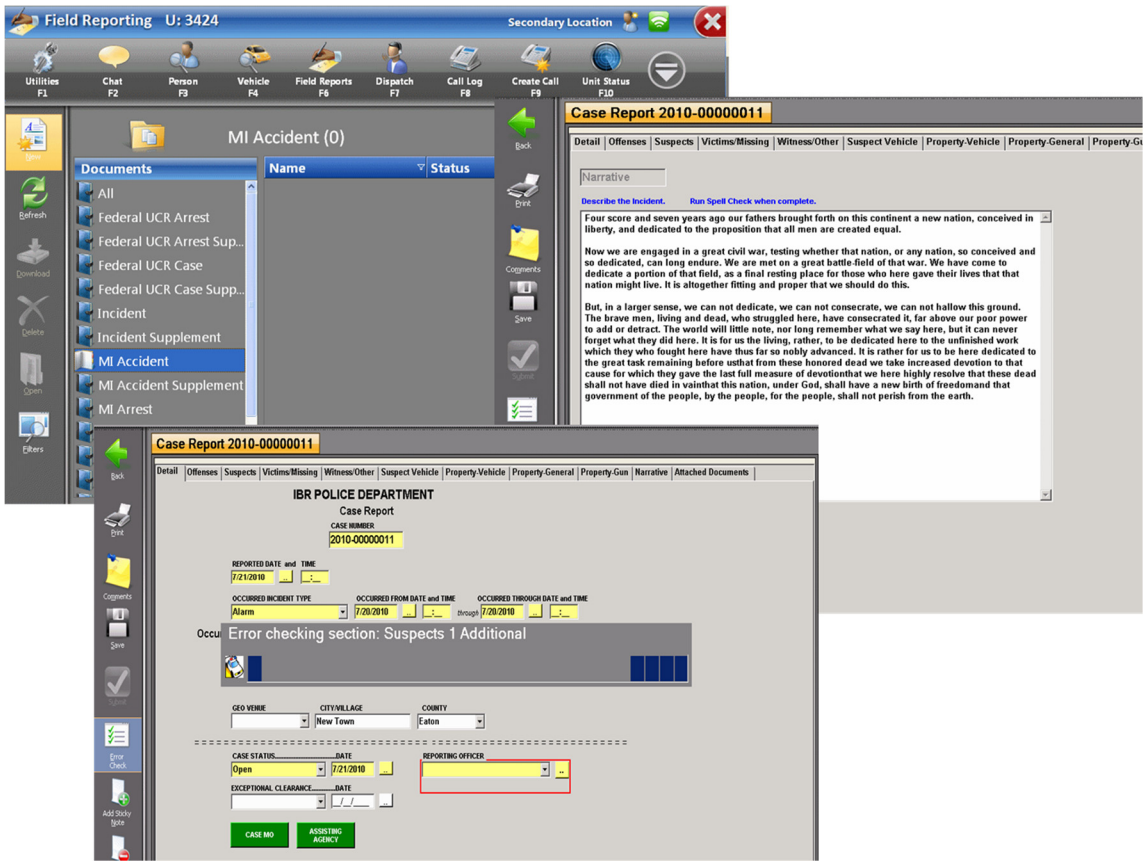
Messaging includes audible and visual notifications including a desktop (Windows system tray) alert

Application Security

The granular application security is configured by agency. A user can be authorized to access case information in one agency but not another. Security permissions for each component in MSP include: add, modify, delete, view, and print. Each agency can control who accesses their information and what they can access. Security templates provide an easy way for an administrator to manage security permissions across common groups.

Mobile and Field Reporting

New World provides a common solution for mobile, messaging, inquiries, mapping, and AVL/GPS. Field Reporting offers a set of form types that can be configured during implementation. The report fields, labels, business logic, and error checking can be tailored to the agency's needs. With a customizable print design, Field Reporting produces professional-looking report forms. Field Reports merge into the Law Enforcement Records Management System (LERMS) to create or update the appropriate module records; a copy of the Officer's report is attached as a PDF to the LERMS record.



Field Reporting is an integrated module using LERMS master files and settings

No interfaces needed between applications

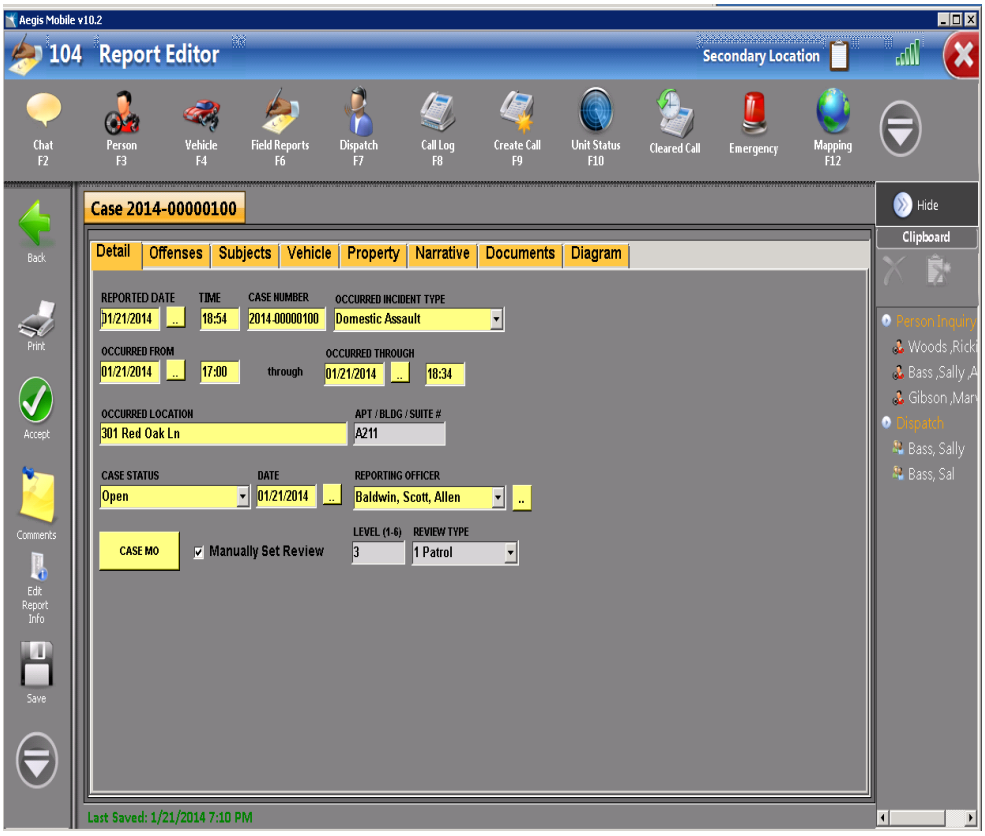
An integrated application suite and common database eliminates the need to provide and maintain interface points between applications. Any required external interfaces operate through well-defined web services that sit outside of the application suite. Users will not experience the frustration of disparate application updates and the problems updates can cause in that environment.

Shared information controlled by each agency

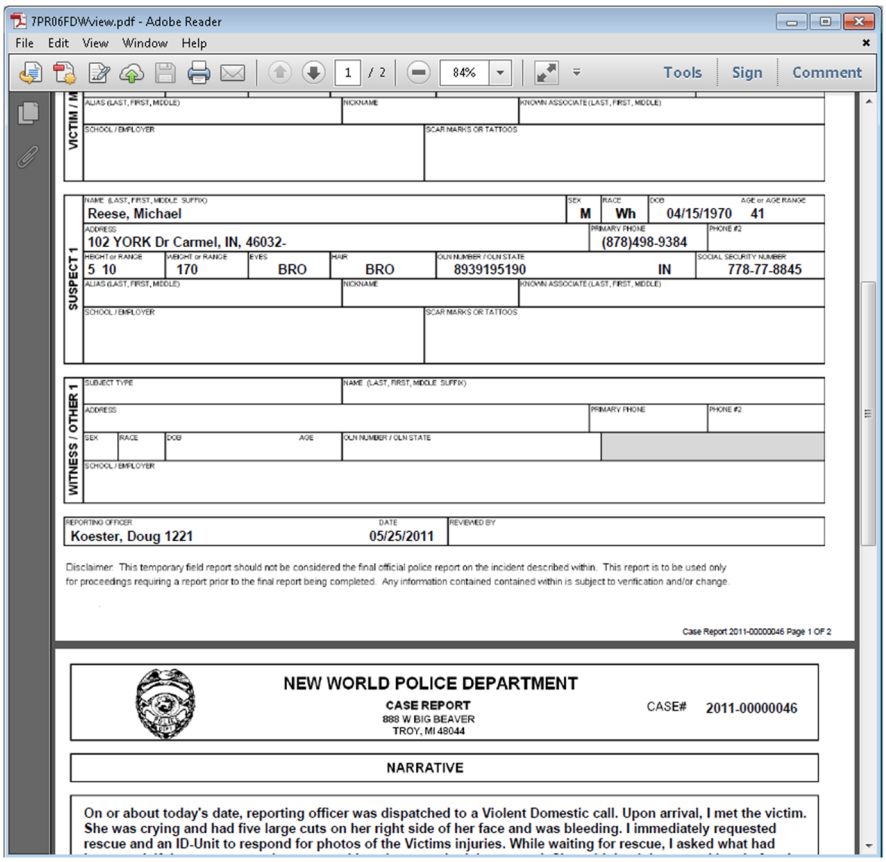
Listed below are some of the integration points in the New World solution. This tight integration provides a complete view of all justice information from any part of software and prevents the issues that come with disparate application solutions.

- Alerts/Hazards – Any New World module will "hit" on any alert or hazard across the solution suite. This includes both agency defined alerts and automatic alerts. Alerts and Hazards are triggered by the location, person, business, or vehicle. Many alerts are automatic and are the result of other records activity. Agencies can also define their own alerts and alert icons making it easy to capture any important information and know that it will be displayed automatically when needed.

- Global Subject Activity – Any user (with permissions) can see the connection to the case, warrant, known offender, gang member, and much more. Partial matching, Soundex, support for ethnic name entry, and wildcard searching is embedded into the application suite.
- Global Vehicles – Any type of vehicle is managed as part of this master file. The entry screens change based on vehicle type. All vehicle activity can be quickly accessed from any vehicle entry or search screen.
- Alarms and Alarm Permits – Agencies that track permits, alarms transactions, key holders, and any other alarm related information can quickly access that information thru CAD Enterprise or RMS.
- Guns – A global gun file ties any type of firearm to the associated event. Property & Evidence (a special type of global file) links to the gun (or vehicle) master file as appropriate.
- Building/Premise Details – Fire Service often maintains the building and other premise information with fire inspections. A building can be associated with multiple businesses making it easy for any New World user to access this very important information. The building and business modules are the foundation for pre-plans.
- Shared Master Files – Where appropriate the New World suite shares master files. Each agency manages their own Personnel module and can secure access but still share critical information. No duplication of information, no data conflicts—just true integration with the entire New World solution.



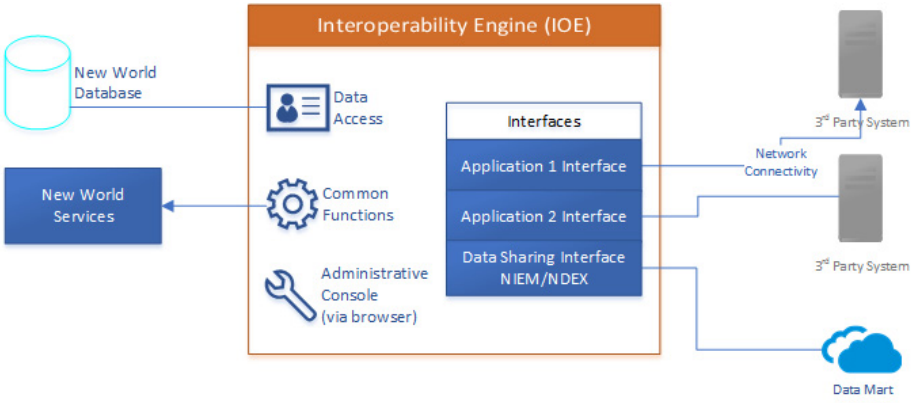
Field Reporting – Case Entry



Field Reporting – Report Output (becomes part of LERMS as an attached PDF)

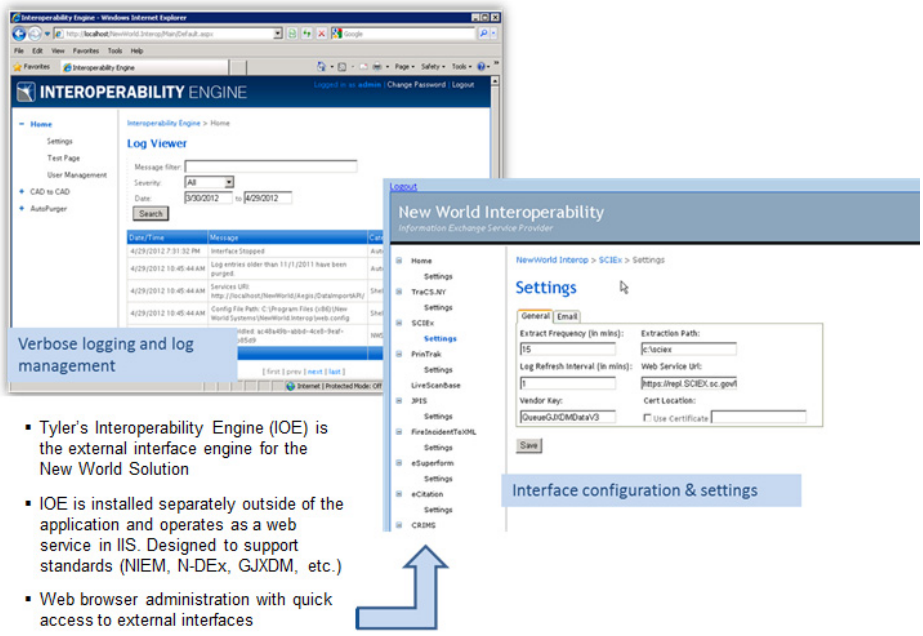
Interface Management

Tyler provides most interfaces using our internally developed Interoperability Engine, designed to provide a service-orientated architecture to deliver standards-based data exchange. Individual interfaces or adapters can be deployed for almost any external system. This could be a data export to a data warehouse (Law Enforcement Information Exchange (LInX), COPLINK, National Data Exchange (N-DEx)), or it could be a full two-way exchange of data using National Information Exchange Model (NIEM) or any other specification. With IOE, an interface can be modified, configured and deployed without affecting the application.

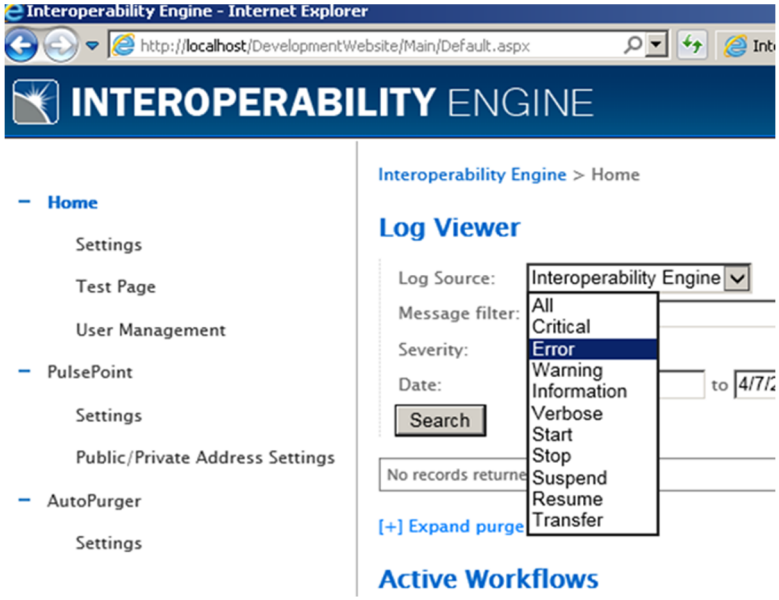


Interface Architecture.

New World's IOE framework has built-in functionality to support email notifications, logging, secure File Transfer Protocol (FTP) and other configuration settings. It can be accessed via the browser and uses a single point of administration, with each individual interface being Uniform Resource Identifier (URI)/page-specific. Once logged into IOE, an administrator can start/stop interfaces, review logs, modify settings and perform diagnostics.



The main IOE web page displays the configured interfaces, active workflows and the log viewer.



IOE Main Web Page.

Compliance

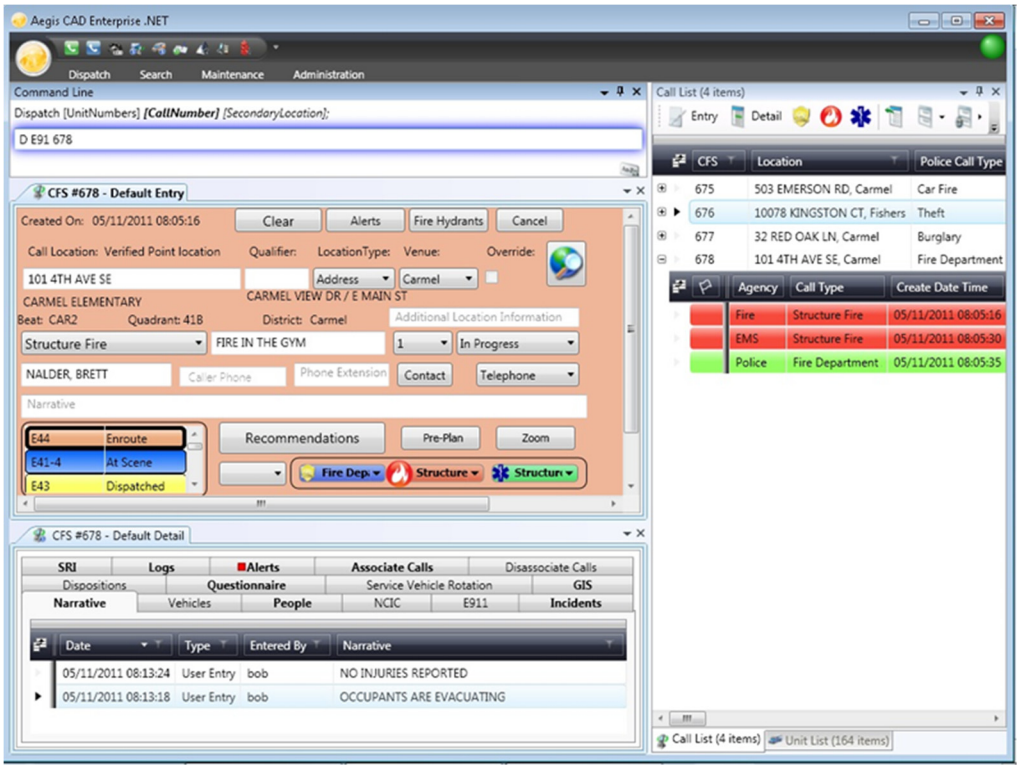
Staying current on APCO and NENA documentation is an important part of our domain knowledge and product development. We also look to state-level leadership where APCO or NENA documentation is still in draft or being modified. State-level authorities will sometimes adopt the mainline NENA/APCO specification while it is being finalized or going through the standard process.

Homeland Security includes a number of federal agencies; most have guidelines or requirements that may affect the Tyler solution. We stay engaged via various meetings, online email and RSS updates, and we frequently check for new information. This includes FBI CJIS, N-DEx, NIEM and others.

New World public safety software supports NIBRS and state IBR only; UCR has been sunset. The DOJ is accepting standard federal IBR, with agreement from states, until such time that the state accepts NIBRS. Tyler is committed to providing the state reporting formats and keeping them current as the state makes changes.

New World Computer Aided Dispatch

Tyler's New World CAD includes the Dispatch Client, Mapping Client and Client Manager, allowing dispatch personnel to quickly capture critical police, fire and emergency medical services (EMS) call for service (CFS) information and manage the dispatch of the appropriate response teams. The service-oriented architecture (SOA) allows the applications to seamlessly transition between functions while offering a more dynamic and robust CAD application.



New World CAD is a .NET client-server solution that is architected for performance and usability. The application suite is highly configurable and allows an agency to tailor the application to meet its needs. The CAD application can be accessed from the Windows start menu, via a desktop shortcut and/or from the Windows notification area (using the Client Manager). The CAD Client Manager gives end users the ability to launch all associated CAD components including maintenance (if authorized). Users can also change from the production to the test and training system using the configuration dropdown.

This latest generation CAD system is based on the newest Esri technology. Unlike other CAD systems, mapping is not a separate add-on application. All geo-verification, mapping and other Geographic Information System (GIS) functions use the Esri components that are embedded in the CAD application. The entire New World application suite uses the common Spatial Database Engine (SDE) geodatabase and can be updated using Esri desktop applications. Embedding Esri technology in the application makes GIS information part of the CAD workflow. Whether its proximity dispatching (closest unit), unit estimated time of arrival (ETA), routing and directions or street closures; the functionality is available to dispatch when and where it is needed.

New World CAD provides a host of features that are categorized in a tabular manner based on functional need. Use of a ribbon toolbar consolidates functionality into one area and is a standard Windows feature. Most people are already familiar with the ribbon toolbar user interface, having encountered it in multiple Microsoft Office applications.

Ribbon toolbar

Communications Centers can easily set up New World CAD based on the responsibilities of their personnel and their unique operational requirements. The application suite can be configured to support any combination of call taker, dispatcher, area and responding disciplines. The sort and filter functions within the call and unit lists allow users to display only those calls and units for which they are responsible. If needed, a user can simply select the appropriate template to change the CAD layout across one or multiple monitors.

New World understands the importance of data sharing and designed New World CAD to interface easily with many third-party systems in order to provide the functionality demanded by E911 operations.

Key Product Features

Enhanced Performance and Scalability

New World CAD was architected to handle the very largest CAD centers operating under heavy loads (greater than 1 million calls per year) without impacting performance. It is designed to be fast while supporting a feature-rich application using common Windows functionality. While many factors will affect application performance, New World CAD optimizes application responsiveness; users are not waiting for a screen, command or action to complete during normal operations. The

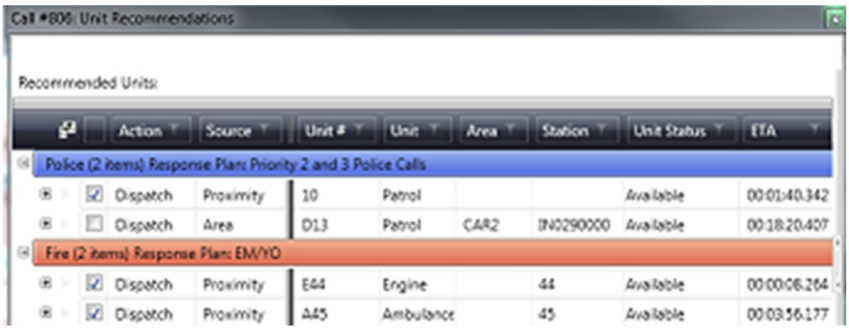
application leverages the latest Microsoft .NET technology and development methodologies and tight integration with our base New World solution was built into its framework.

Enhanced/Modern User Interface

The user interface (UI) workspace makes it easier to navigate and configure the application and allows for better use of available monitor space, enabling dispatchers to be more efficient. It also reduces the training time for new dispatchers, which leads to decreased training costs and increased productivity. The UI provides an improved end-user experience, giving dispatchers more freedom in their screen setup while still controlling and enforcing agency standards.

Proximity Dispatch

Proximity Dispatch significantly decreases response times by using Automated Vehicle Location (AVL) to show dispatch which unit is closest to the call using real-world driving conditions. This feature utilizes the Esri street network while incorporating speed limits, road closures, road height/weight restrictions and other important factors. Unit types are incorporated into the solution with the ability to scale the response percentages based on unit type, such as a ladder truck taking more time compared to a standard apparatus.



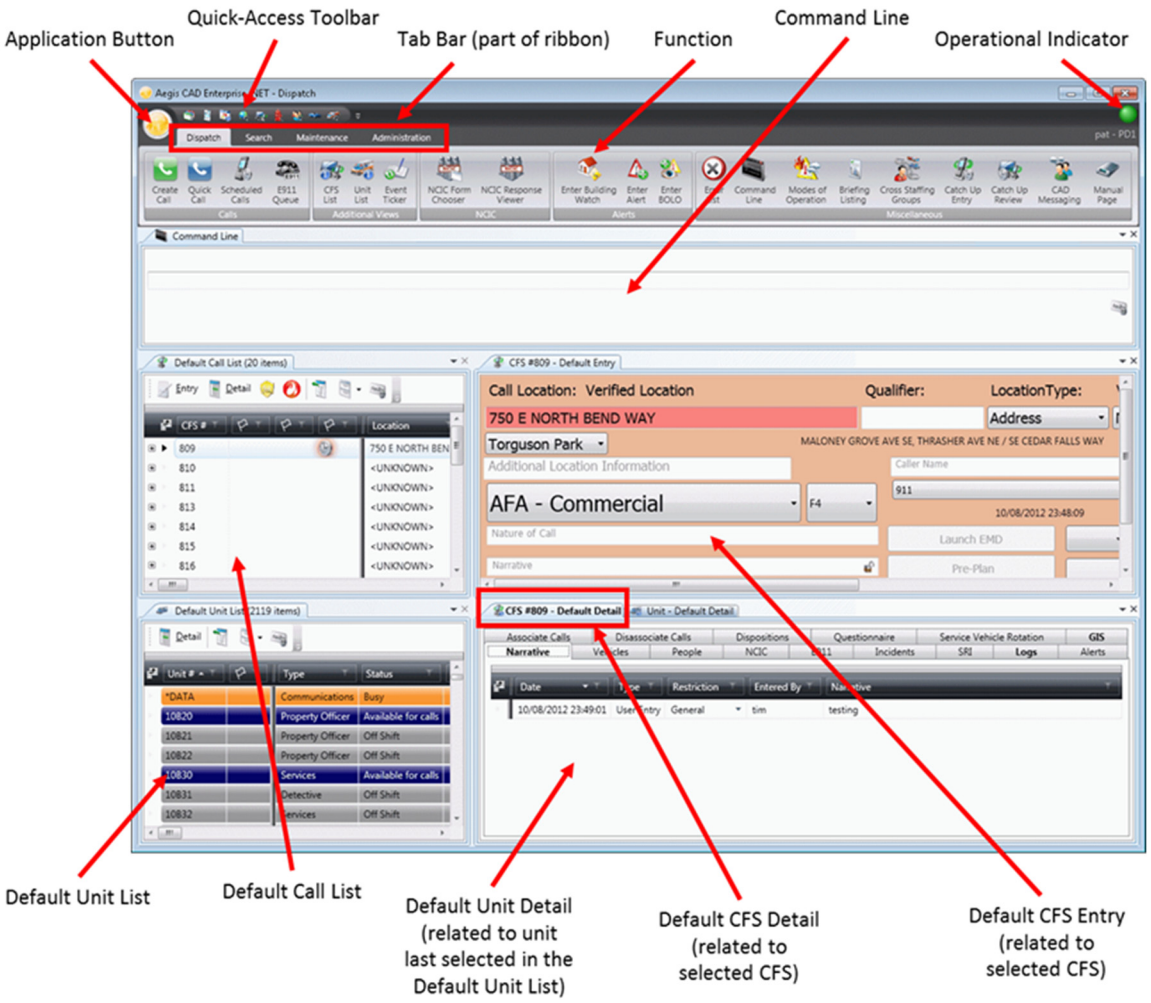
Proximity Dispatch showing both Police and Fire.

Enhanced Interactive Location Prompt (ILP)

The Interactive Location Prompt in New World CAD has been enhanced provides dispatchers with quicker location of addresses and common names, while assisting with difficult spelling. The ILP leverages the latest Esri technology, including composite address locators and support for external Esri services. When identifying an intersection as the location, users only need to enter one of the street names and the software will display a list of intersecting streets. This saves time for dispatchers by increasing first-time accuracy when entering a call.

Command Line Flexibility

Command Line entry uses fewer keystrokes for quicker processing, reducing the amount of time it takes to respond to emergency personnel and reducing radio traffic. Multiple Command Line windows can be open simultaneously, which can be helpful when entering a longer command; dispatchers can enter shorter commands in a separate window without having to interrupt typing the longer command.

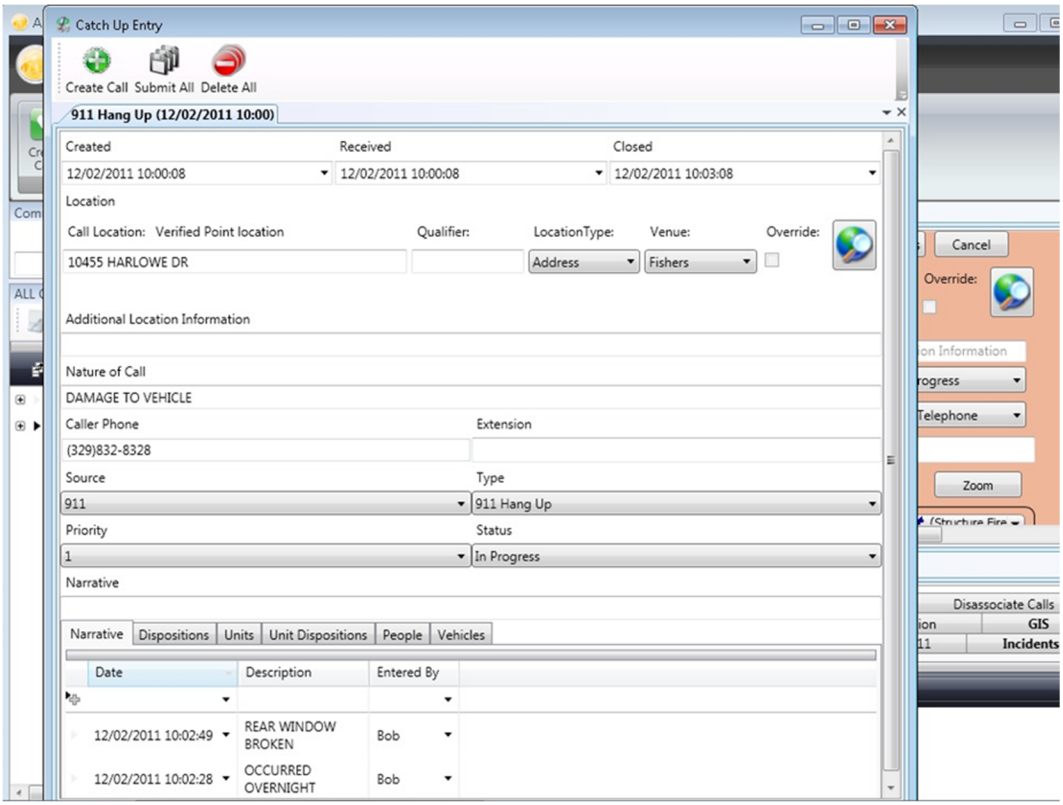


Sample CAD workspace on one monitor.

CAD Catch-Up (Stand-alone Client)

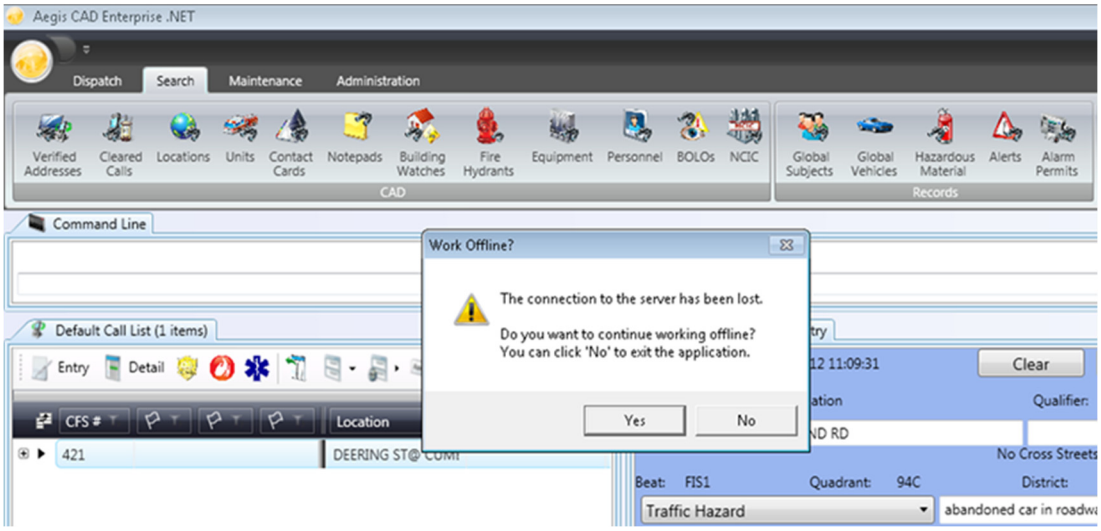
Tyler's New World CAD application provides "Catch-Up" functionality as part of the base solution. This feature allows call takers, dispatchers and supervisors to enter information into CAD when the servers or network are unavailable due to planned maintenance or an unplanned outage. The CAD client can operate in "stand-alone" or catch-up mode wherein an individual workstation operates as an independent CAD system. Users can continue to enter call information into the CAD client; entered call information is automatically queued up for supervisor approval. When the client can connect again to the server, the supervisor-approved CFS information updates the system automatically.

CAD clients access a local copy of the GIS data using an Esri map package. This means users can continue to geo-validate locations and use client-level CAD mapping functionality while in stand-alone mode.



CAD Catch-Up Processing

CAD clients provide a pop-up window if the client connection to the server is lost for any reason. A CAD operator can continue to work in limited "stand-alone" mode or they can exit the application. If operating in a stand-alone (catch-up) mode, there is no need for manual (paper) tracking of dispatch events; the system allows basic CAD operations to continue. Users can enter call and unit status information and can geo-validate locations on the CAD client while operating in CAD Catch-Up mode. Client-specific CAD Mapping features will continue to function normally.



User Notification for disconnect.

Modes of Operation

New World CAD supports modes of operation (disaster mode), allowing agencies to better utilize available resources during critical times. Earthquakes, major storms and flooding can all dictate response plans that either enhance or reduce the normal unit response due to the situation. With New World CAD, the appropriate mode of operation can be activated to efficiently utilize available resources.

Unit Recommendations and Response Plans

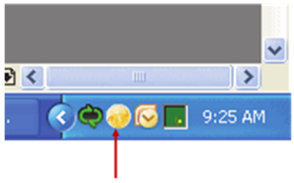
Unit Recommendations have been enhanced in New World CAD to provide dispatchers with automatic unit recommendations based on proximity and resources with consideration for street networks, skills, equipment and more. This robust functionality decreases the amount of time it takes to dispatch required resources to a call. The application supports dynamic response plans wherein a recommendation may change (after dispatch) as other unit statuses change.

Esri GIS Technology

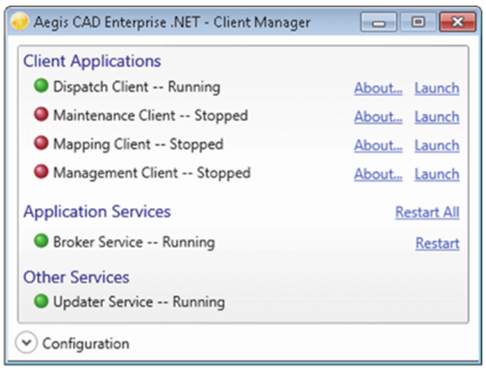
The Mapping and GIS functionality embedded in CAD leverages the latest Esri technology. All GIS data across the New World suite is managed and updated from a common SDE geodatabase using Esri desktop applications. Any file format supported by Esri can be used in the SDE. This provides dispatch with access to all pertinent GIS information with quick and easy-to-use map functionality that can be configured as needed. The architecture of CAD allows geo-verification and other mapping functionality to continue working even when the client application is operating in catch-up mode (stand-alone client).

Client Manager

As part of the New World CAD software installation, a Client Manager is installed on the client PC that displays the status of client applications, as well as the status of related services. Users can also launch the applications from this window, restart or stop the services and switch their server, if needed. Once the application is loaded, the Client Manager resides in the Windows notification area and is accessible by double-clicking the Client Manager icon.



CAD Client Manager Icon



CAD Client Manager Window

To launch an application or restart a service, the user must click the Launch or Restart link corresponding to the application or service. The configuration drop-down allows the user to select or enter the CAD server being used by the client application. This makes it easy for a user to connect to the production or the test/training CAD system.

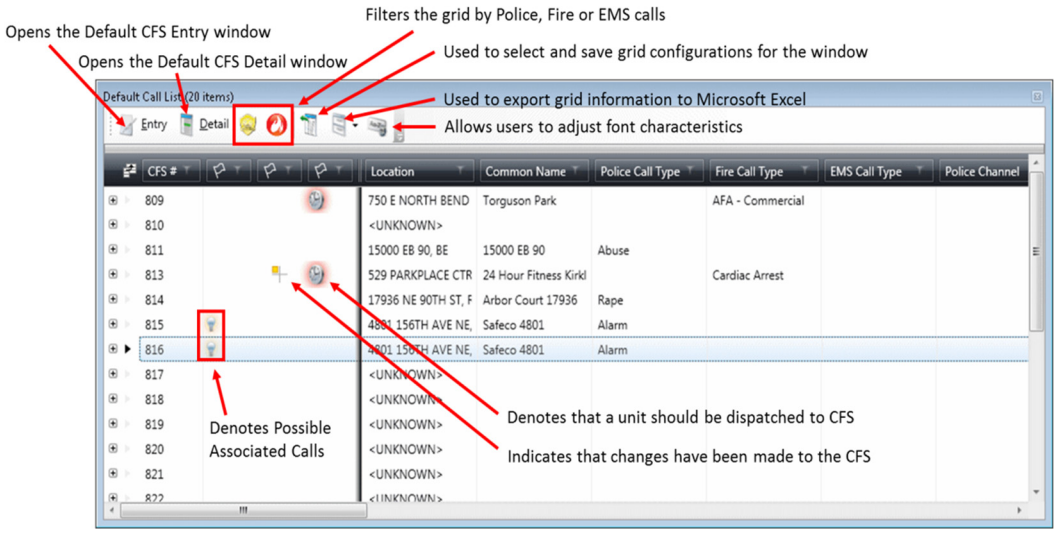
Dispatch Client Functionality

The New World CAD Dispatch Client application allows CAD dispatch centers to function more efficiently, while offering dispatchers all the tools necessary to quickly take calls and dispatch the appropriate agency personnel. The .NET service architecture of CAD means no one error can take down the CAD application. With NG911 bringing emergency data in from various sources this will become more and more critical to most Public Safety Answering Points (PSAPs).

Dispatch Client Basics

Default CFS List

The Default Call List window lists all active CFS currently logged by an agency. This window contains a number of columns that reflect the CFS Number, Type of CFS, Location of the CFS, Current Status of the CFS, CFS Priority, the Nature of the Call and other important details.



Sample Call List

Right-Click Functionality

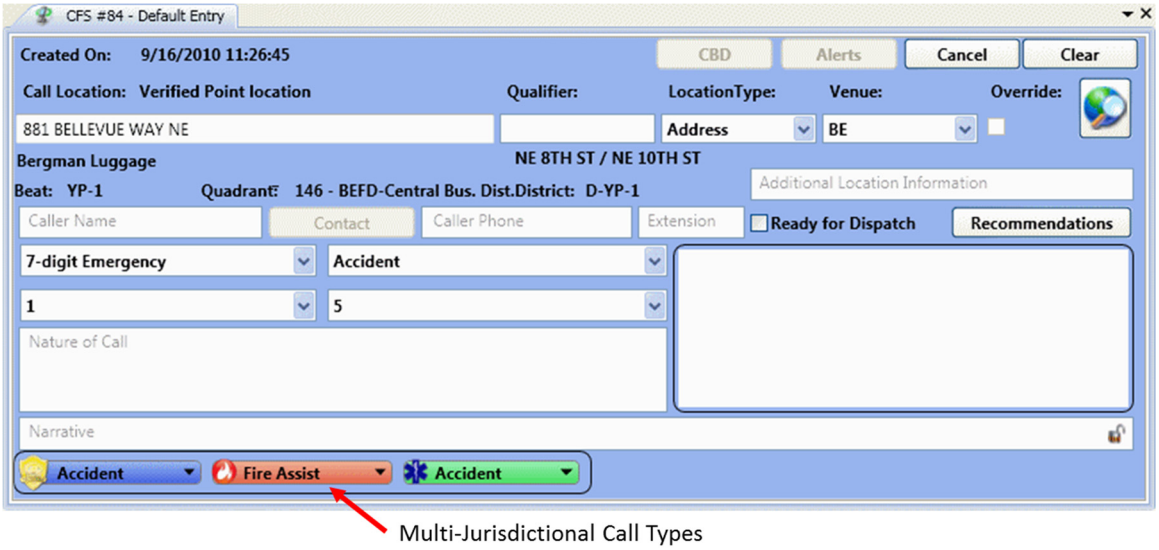
Users can right-click on a CFS in the Default Call List to access additional options that allow them to open the selected CFS, clear the selected CFS, cancel the selected CFS and zoom to the selected CFS on the map (if the Mapping Client application is running).

Also, users can right-click on the column heading row in the Default Call List to access additional options that allow them to adjust the font size, export the grid and its contents to Microsoft Excel, customize the title of the given view and enable the Attention Required indicator that alerts dispatchers that a given CFS requires attention. If a new CFS is added to the grid, the Attention Required indicator will display until the dispatcher clicks in the grid. The Attention Required indicator can be enabled for multiple Default Call List grids and is useful for grids that are filtered on items where action needs to be taken, such as Pending Calls.

When the Customize Title option is selected, a Customize View Title dialog window appears, allowing users to add a new title for the current view. This makes it easier for users to switch back to views that offer a specific arrangement of information for specific dispatching tasks.

Default CFS Entry

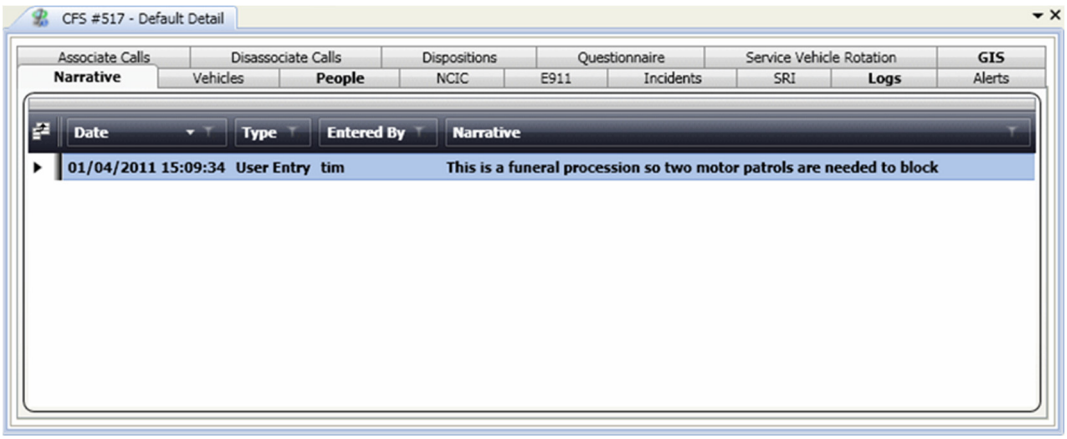
The Default CFS Entry window, along with the associated Default CFS Detail window and its associated tabs, is the main tool used by dispatchers to document the details of a CFS as it is being reported. Dispatchers can use the standard Default CFS Entry window or an agency-defined custom CFS Entry window.



If set up via Call Types in Call Maintenance, dispatchers can have multiple call types associated to the same call so that there is a clear differentiation as to which agency is responding to which call. For instance, a call might come in for a multiple-vehicle accident with injuries. Since multiple agencies will respond to the call and the call types may differ between those responding agencies, dispatchers can select the appropriate call type for each agency that is responding. Police would log the call as an Accident while the Fire agency might list the call as Fire Assist and an EMS agency would list the call as Injury Accident. This helps to correctly log a single call for multiple agencies.

Default CFS Detail

The Default CFS Detail window contains 15 tabs used to enter and display details about the given CFS.



Narrative – The Narrative tab displays narrative information entered in the Narrative text box on the Default CFS Entry window, along with Questionnaire Synopses and any Emergency Medical Dispatch (EMD) narratives.

Vehicles – The Vehicles tab allows for the entry and maintenance of vehicles associated with a CFS. Clicking the Vehicles tab displays a grid listing of vehicles associated with the CFS, as well as controlling the entry of additional vehicles.

People – The People tab enables CAD Center personnel to enter and maintain information on people involved with a CFS such as witnesses, callers and suspects. Clicking the People tab displays a grid listing of people associated with the CFS, as well as controlling the entry of additional associated persons.

NCIC – The NCIC tab is for reference purposes only and displays any online queries that have been received from the National Crime Information Center (NCIC) related to the given CFS.

E911 – The E911 tab displays a log of all 911 details relating to the associated CFS as log information only. Users will see information regarding the PSAP Number, the receiving phone position, the date/time the PSAP was received and the name, address and phone number of E911 sender. The information contained on this tab comes from initial 911 calls, merged calls from associated call merging and updates to the CFS from the E911 Call Queue.

Incidents – The Incidents tab displays incident numbers for the various agencies associated with the open CFS. Incident numbers are generated based on the units dispatched to a CFS. Separate incident numbers are created for each unit from different Originating Agency Identifiers (ORIs)/Fire Department Identification Numbers (FDIDs). An incident number can also be generated for the CFS based on the call location, even when no units are attached to the call. In this case, an incident number is created based on the location of the call and the jurisdiction responsible for that location. Additional incident numbers can be created on request by clicking the Request Incident No. button. Also, a case can be created from the incident by clicking the Create Case button. The Unit and ORI/FDID radio buttons control the contents of the associated menu.

SRI – The Special Response Information (SRI) tab, which is based on CFS Type, features any special information about the CFS that may assist responding agency personnel. This could include listing the presence of hazardous materials or special entry instructions.

Logs – The Logs tab tracks action taken on the call including call creation, changes, clearance, units assigned via a run card or unit recommendation, unit involvement, manual pages and which dispatchers opened up a particular CFS. This information is contained on two sub-tabs: Call Log and Unit Log.

Alerts – The Alerts tab allows users to view information pertaining to any alerts associated with the current CFS. Alert information included on this tab includes the category of alert, type, priority, description, alert location, effective date and expiration date. The status of alert searches appears along the top of the tab with colored indicators denoting their success.

Associate Calls – The Associate Calls tab allows users to view and open a CFS that may possibly be associated with the current CFS. Users can enter a search radius to return possible associated calls within a specified radius from the current CFS.

Disassociate Calls – The Disassociate Calls tab lists calls that may possibly be associated with the current CFS and allows users to review them and disassociate them from the CFS.

Dispositions – The Dispositions tab allows users to assign dispositions to the CFS and the associated units. This information is contained on two sub-tabs: Call Disposition and Unit Disposition.

Questionnaire – The Questionnaire tab allows users to view questionnaires associated with the CFS.

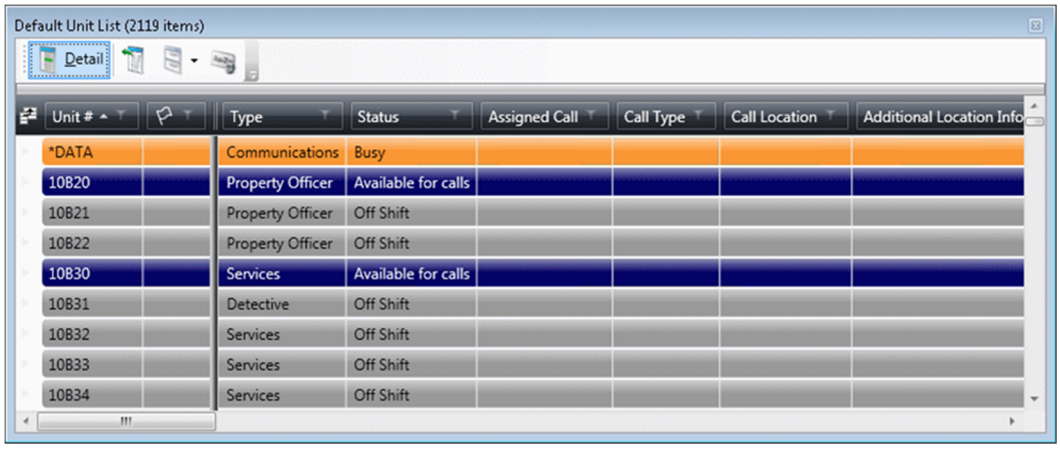
Service Vehicle Rotation – The Service Vehicle Rotation tab allows users to locate a specific type of service vehicle, such as a wrecker or street-cleaning vehicle, to assign to a CFS regardless of the vehicle's service rotation sequence. This information is contained on two sub-tabs: Rotate and Rotate Logs.

GIS – The GIS tab provides additional information on verified locations. Once a location is validated, clicking on the GIS tab displays read-only information on two sub-tabs: Areas Sub-tab and Intersections Sub-tab.

Default Unit List

The Default Unit List displays summarized information on all units associated with a CAD Center, including unit number, type, description, location and status; associated incident number if any; CFS number, type and location; the officer manning the unit; vehicle number, description and plate number; unit manning, capacity and more.

The Default Unit List allows users to view, at a glance, the status and location of multiple police, fire or EMS units. From this window, users can also open, edit, delete and perform unit-related tasks by selecting a call in the Default Call List and opening the associated Default Unit Detail window.



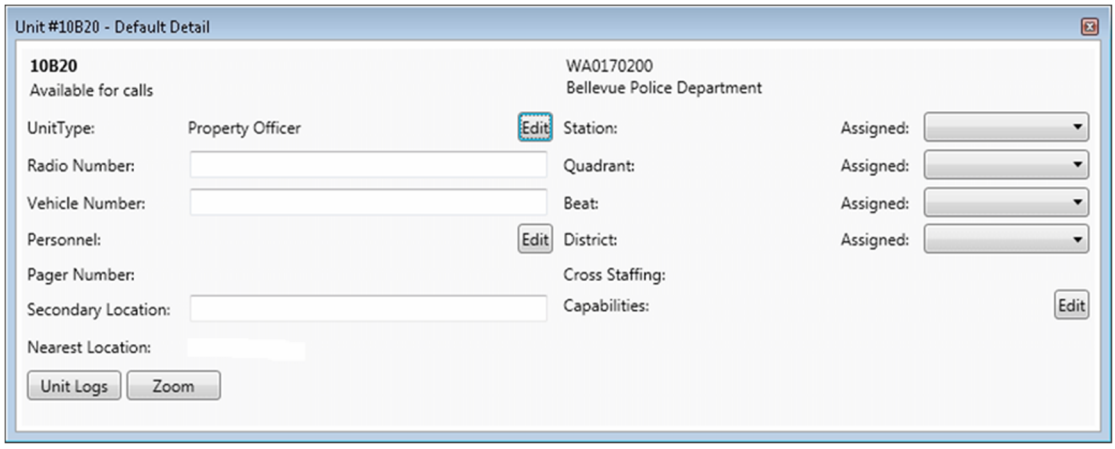
Unit List

Users can reorder and resize column headings according to personal preference. Multiple Default Unit List windows can be open simultaneously with each filtered to display different information. For example, one might display Available units while another displays Dispatched units.

Also, users can right-click on a unit in the grid to access a menu that allows a dispatcher to change a unit's status, add a unit to a call stack or track a unit on the map.

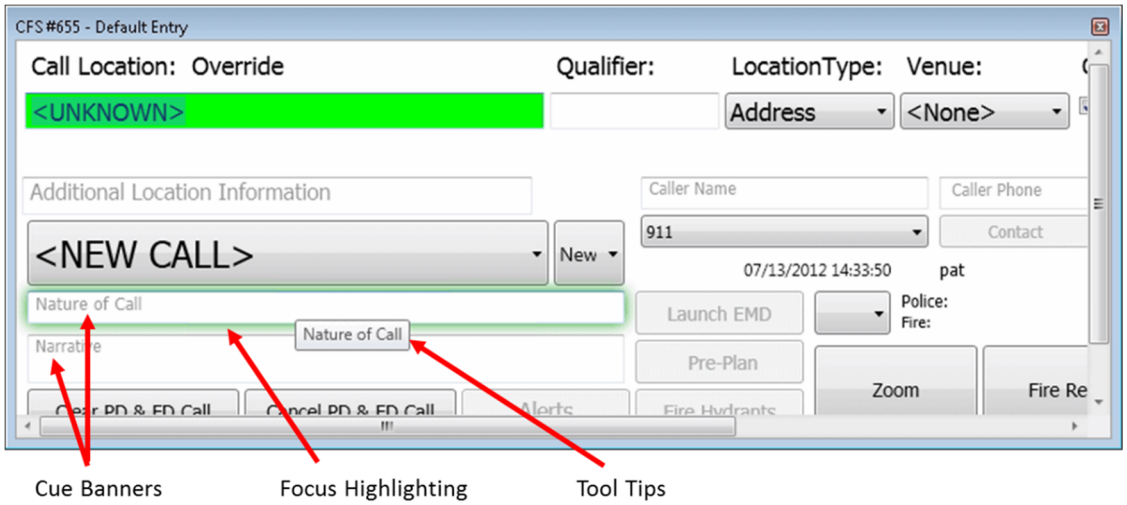
Default Unit Detail

The Default Unit Detail window allows users to see, at a glance, the details of a unit. Users can also edit unit types, edit the personnel who are assigned to vehicles, edit unit capabilities, view the unit logs and zoom to a unit on the map if it is dispatched to a CFS.



Visual Indicators

Many windows within the Dispatch Client are equipped with visual aids to assist users in understanding the purpose of controls as well as to alert them to the location of their cursor within a window. Cue Banners, Focus Highlighting and Tool Tips offer users an easier way to navigate within the application.



Operational Indicators

In the top-right corner of the application window, an indicator displays the status of the operational connection. This offers users an at-a-glance visual indication as to the status of the Dispatch Client connection.

Application Button Functionality

The Application button offers functionality that allows users to switch users, access reports, view a window list, create templates and customize the buttons displayed on the ribbon for each tab. To access this menu, the user clicks the Application button.

Switch Users – When the application is running, users can switch users without having to close and re-open the application. For busy positions, this makes it much easier at shift change to switch dispatch operators and have the application log the appropriate user in any records.

Reports – The Report Selector window allows users to select a report from a list of standard reports rendered in Microsoft Excel.

Window List – The Window List offers users a quick way to view which windows are currently open in the New World CAD workspace, as well as relevant details pertaining to those windows, such as total number of calls in the Default Call List or total number of units in the Default Unit List.

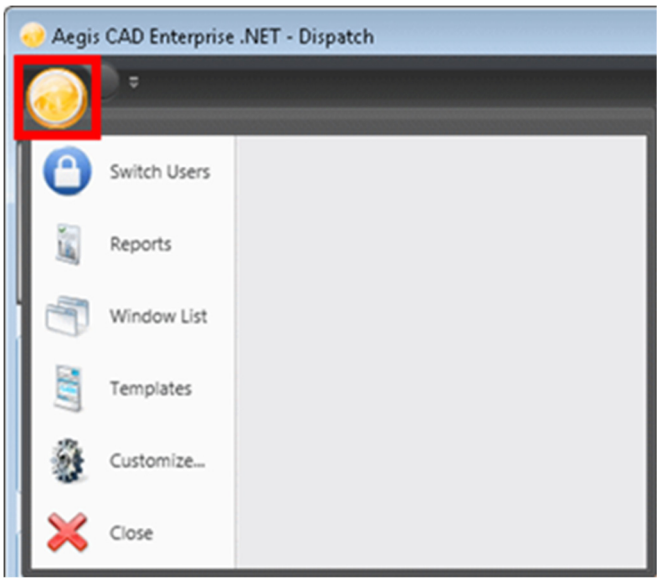
Templates – Templates allow users to save specific user workspace configurations so they do not need to set them up every time they launch the application. Once a user sets up the windows of the application a certain way, that setup can be saved for use each time the application is launched. Templates can be shared across the system, so dispatch can have separate call taker and dispatcher templates or police and fire dispatch templates, etc.

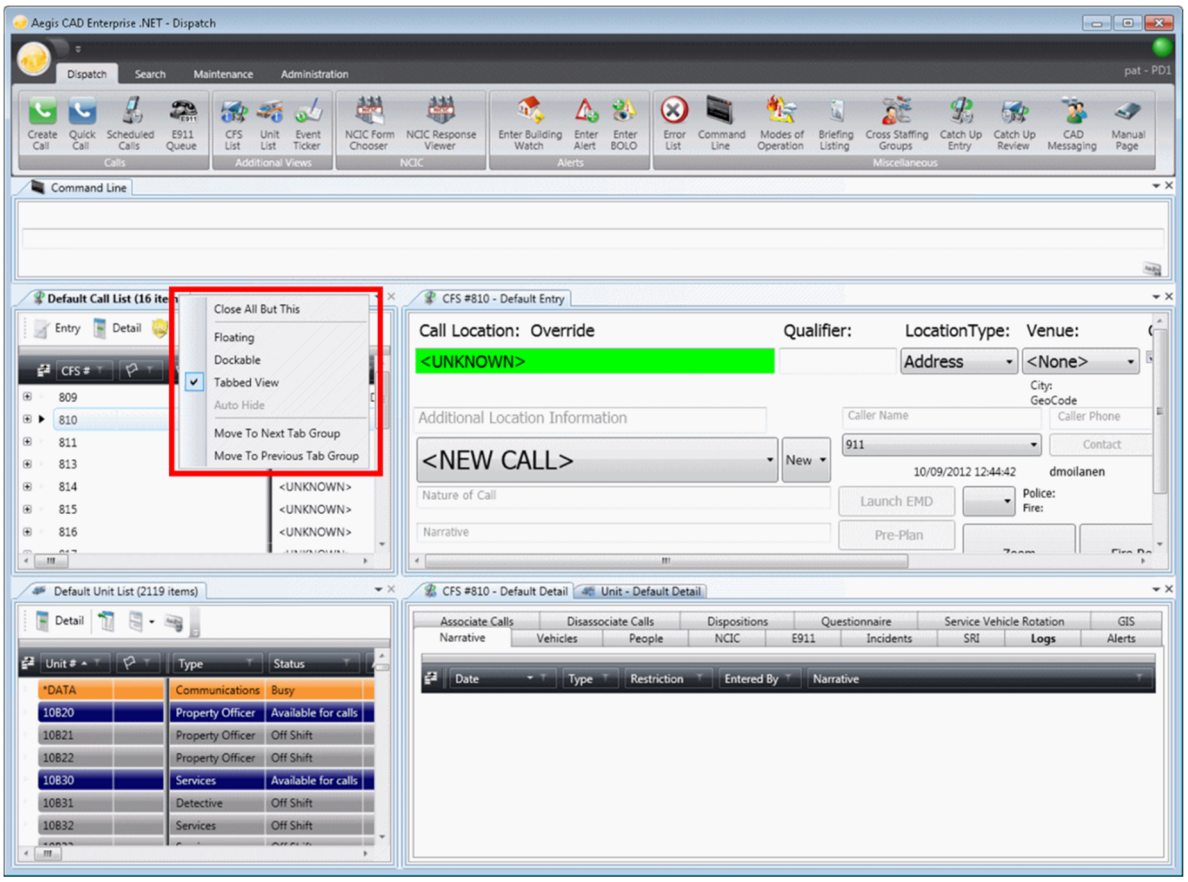
Rearranging the CAD Window

Users have the ability to rearrange the windows of the Dispatch Client interface. This allows users to set up their workspace in a manner best suited to functional needs. Users have several methods at their disposal to arrange the windows in their workspace, such as floating, dockable or tabbed view. Window and workspace settings can be saved to a template (see above), even across multiple monitors.

Windows Positioning Menu

The Window Positioning Menu dialog is accessed by right-clicking on a window's tab or title bar. Users are given the option to arrange the windows in one of three ways: floating, dockable or tabbed view. Each window positioning selection offers a different menu that offers additional positioning options.

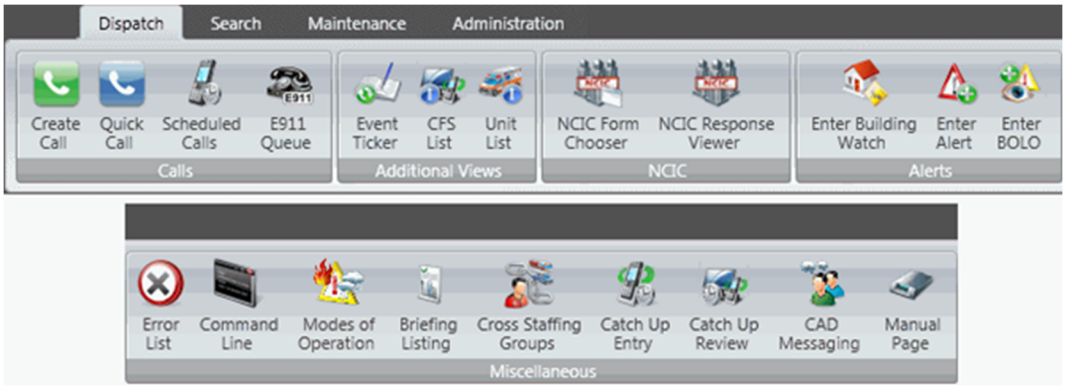




Dispatch Functionality

The Dispatch process comprises many different functions working together to ensure that agency personnel are dispatched in a timely manner to a CFS and that all critical information is gathered and communicated to all parties involved with the call. Using the functionality contained on the

Dispatch tab ribbon, dispatchers can quickly receive a call, record all relevant information, dispatch the correct agency resources, add information as the CFS progresses and perform other critical duties.



The ribbon on the Dispatch tab contains groupings of related functionality, such as Call functions, Additional Views, NCIC, Alerts and Miscellaneous functionality. The following functionality is available on the Dispatch tab:

Proximity Dispatch

Proximity dispatch (closest unit) allows agencies to dispatch units to a CFS based on their proximity to the location of the call. When settings in New World CAD Maintenance have been set and CAD AVL and the Mobile application are in place, agencies can utilize proximity dispatch.

Positional Dispatch

Positional Dispatch, when enabled in System Settings Maintenance on the Administration tab, is the practice of using specific positions from which dispatchers dispatch a CFS. Since many agencies dispatch CFS from specific positions within the dispatch or call center, the Dispatch Client application offers dispatchers a way to log into a specific position upon login or by using a Command Line command. When utilizing positional dispatch, several areas of the Dispatch Client are utilized and dispatchers can then filter their Default Call List to display only the calls assigned to their position.

Geo-Verification

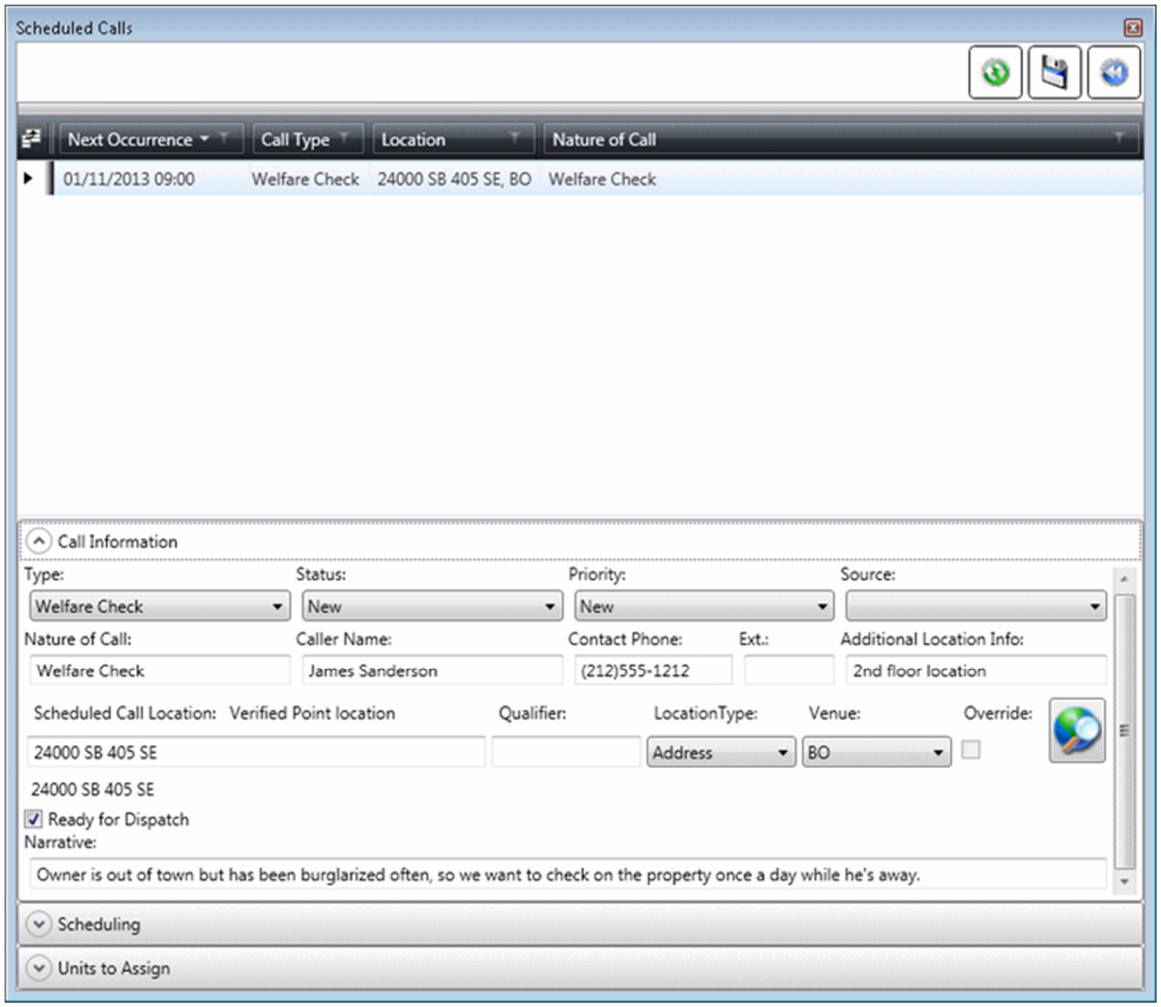
The Dispatch Client application comes standard with the New World geo-verification control that automatically verifies locations when a user tabs out of a location field. A full geo-verification window can be displayed that lists match candidates in order, in both text and map view.

Call Functions

The Calls toolbar group contains functionality related to creating a CFS or a Quick Call, scheduling calls and viewing a list of all received E911 calls.

Schedule Calls

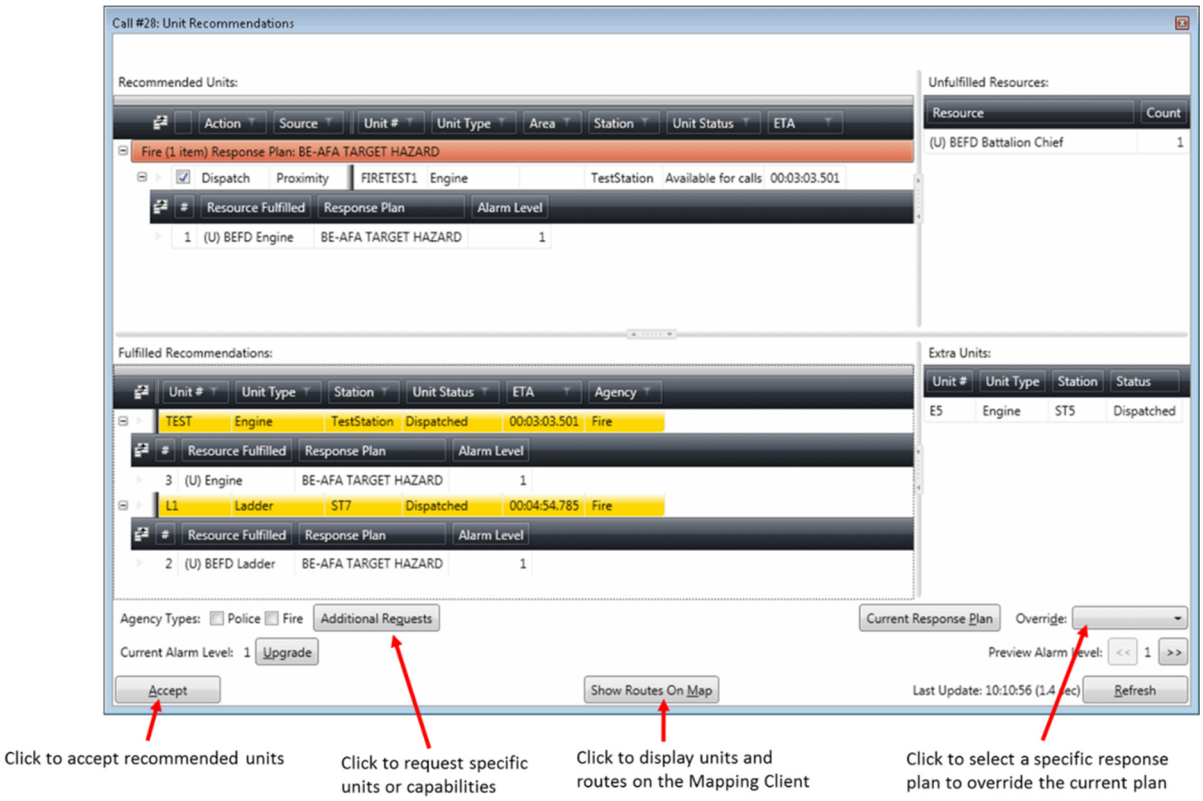
At times, it is necessary to schedule a CFS that has yet to occur but is planned, such as a funeral procession, a street closure for an event or transportation of defendants to/from court proceedings. The Scheduled Calls window allows dispatchers to enter information pertaining to scheduled calls so that they appear in the Default Call List with units already assigned.



Unit Recommendations

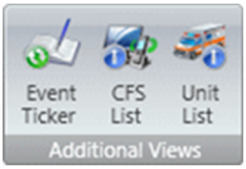
The New World CAD Dispatch Client features a thorough and agency-definable unit recommendation procedure for Law Enforcement, Fire, EMS and other unit types with the click of button.

Unit recommendations provide suggestions on units to dispatch based on CFS information such as Type, Priority and Location. Also, unit recommendations are based on available response plan designations that are listed above the Recommended Units, if available for the given call type. The Unit Recommendations window lists all units recommended for the current call, while denoting which resources are fulfilled, unfulfilled or extra, as well as any special response narrative. The window allows the dispatcher to accept the recommended units, request additional resources, show the units on the map and view and override the response plan.



Additional Views Functions

The Additional Views toolbar group contains functionality related to showing the Default Call List and Default Unit List windows, as well as viewing the event ticker, which displays live narrative entries and, if licensed, radio information.



These functions are grouped together so that they can be filtered in such a way that their contents would match the duties of a particular dispatcher. For example, a dispatcher may only be responsible for handling fire calls and may want to set up one grouping to handle pending fire calls and one to handle dispatched fire calls.

Being able to customize a dispatcher's workspace offers agencies added flexibility and helps minimize "context switching" that would otherwise be required.

NCIC Functions

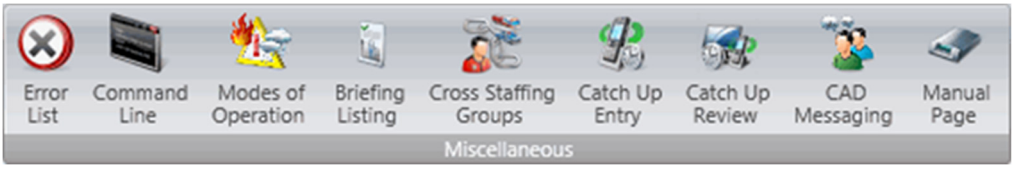
The NCIC toolbar group contains functionality related to sending and receiving NCIC messages. With the State/NCIC interface, users can run any transactions the state supports on a host-to-host interface. The State/NCIC entry forms (masks) are agency-configurable and CAD includes a State/NCIC forms builder.

Alerts Functions

The Alerts toolbar group contains functionality related to entering Be-On-The-Lookout (BOLO), building watch and alert/hazard information for people, locations and vehicles.

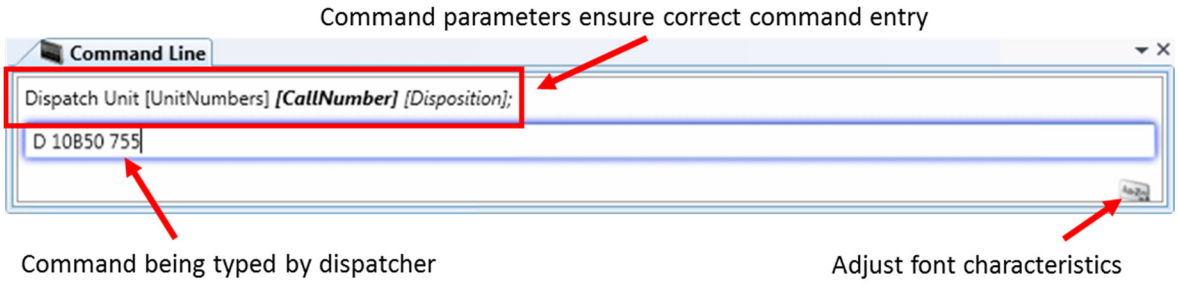
Miscellaneous Functions

The Miscellaneous toolbar group contains functionality related to showing a list of errors and the command prompt, defining modes of operation, generating a briefing listing, viewing entering/reviewing CAD catch up calls, sending/receiving messages and sending manual pages.



Command Line

The Command Line offers another way to access CAD functionality. The Command Line is a small dialog box used to enter commands and is present on the default CAD workspace. To open additional Command Line windows, the user clicks the Show Command Prompt button, types the command in the text box and clicks Enter on the keyboard to execute the command.



As users enter commands, the command syntax highlights the particular parameter of the command the user is currently entering. Using a space after each parameter of the command moves the command to the next parameter entry point.

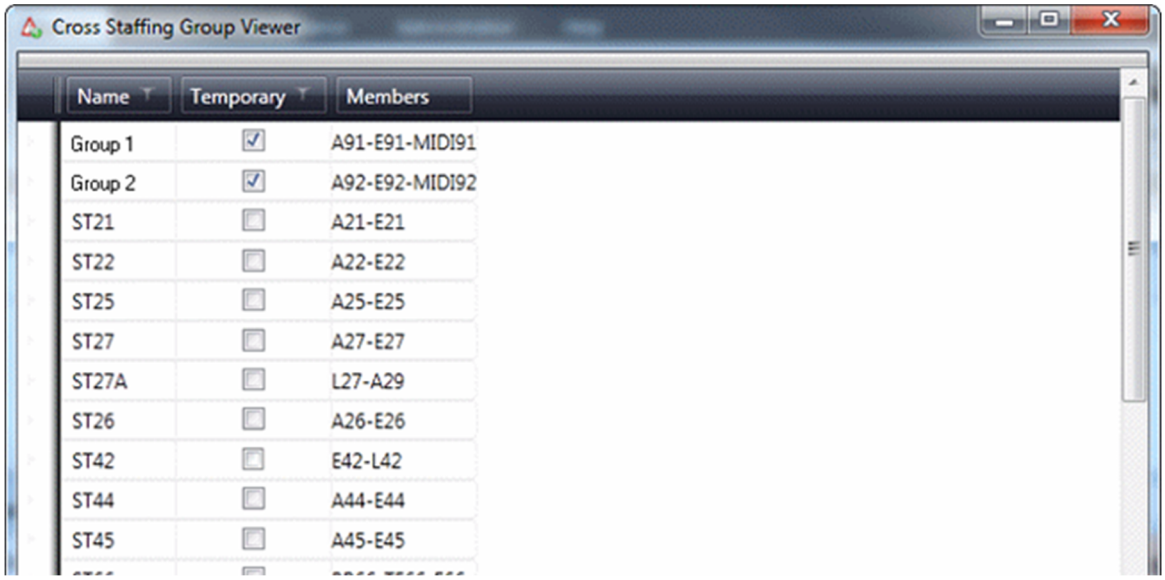
Commands are agency-defined, which allows dispatch to continue using any existing commands if desired. If the user is entering a command with an address or location, the system will show the interactive location prompt and automatically geo-validate that entry.

Modes of Operation (Disaster Mode)

Modes of Operation are used to denote times when standard responses are changed due to any number of contributing factors. For instance, in the case of a major earthquake, agencies might determine that they need to run in a Disaster mode, which may activate special response plans that differ from normal modes of operation. During different modes of operation, unit recommendations and response plans may differ as needed. For example, a call that is usually a two-unit response may only recommend one unit to ensure that all critical calls get a response.

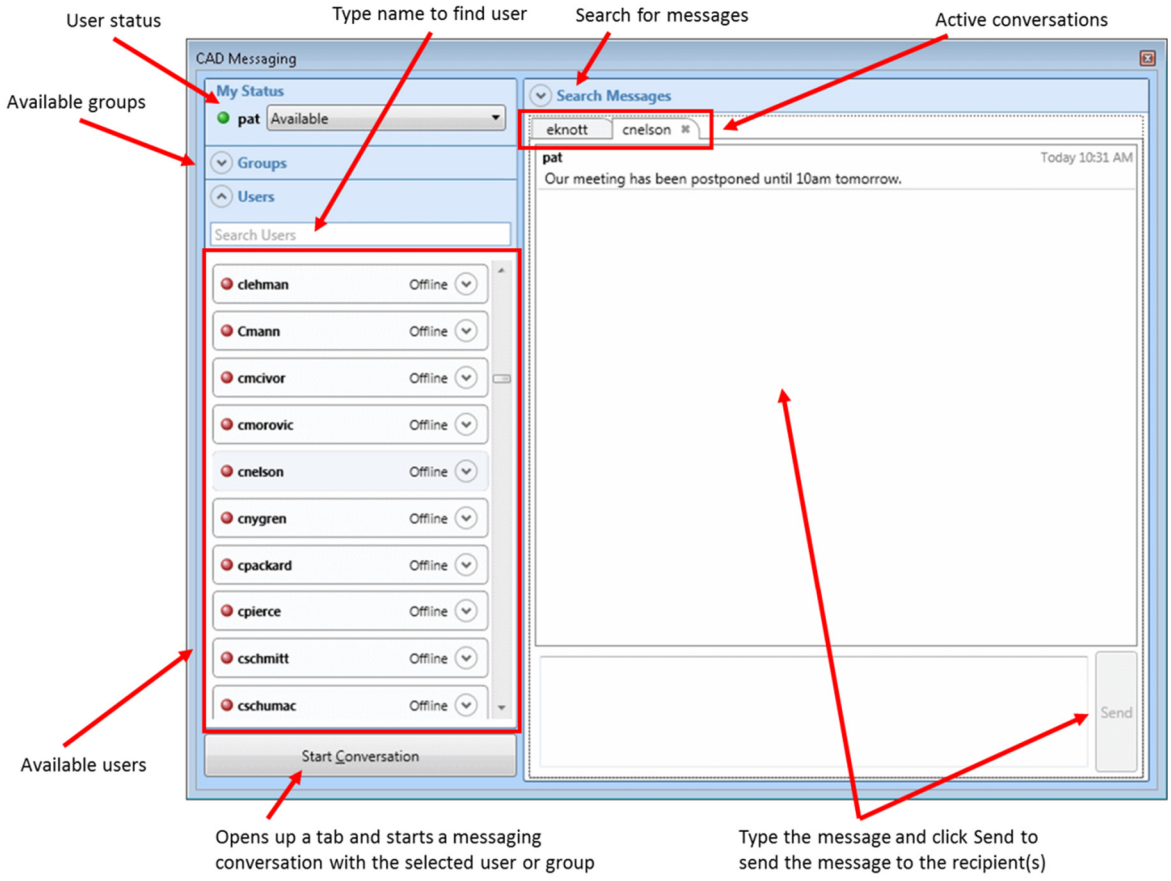
Cross-Staffing Groups

At times, personnel or units are used in a group and, as such, are linked together by way of Cross-Staffing Groups. Cross-staffing allows personnel to run with multiple units. For example, two paramedics may be cross-staffed in both an ambulance and engine. If the ambulance (with the two paramedics) is out, the engine would not be recommended unless the station has adequate staffing for that unit.



CAD Messaging

CAD Messaging allows users to send instant messages to other users or groups in the application that they are currently in or to associated applications.



Sending messages is as easy as clicking on a user or group, clicking the Start Conversation button, entering a message in the text box and clicking the Send button.

Any messages a user receives appear on a tab with the sender's name. Any subsequent messages stay within that conversation window on that person's tab.

Also, if a user receives a message while their CAD Messaging window is closed, a notification bubble appears in the upper right corner of the application next to the operational indicator. Double-clicking this bubble opens the CAD Messaging window.

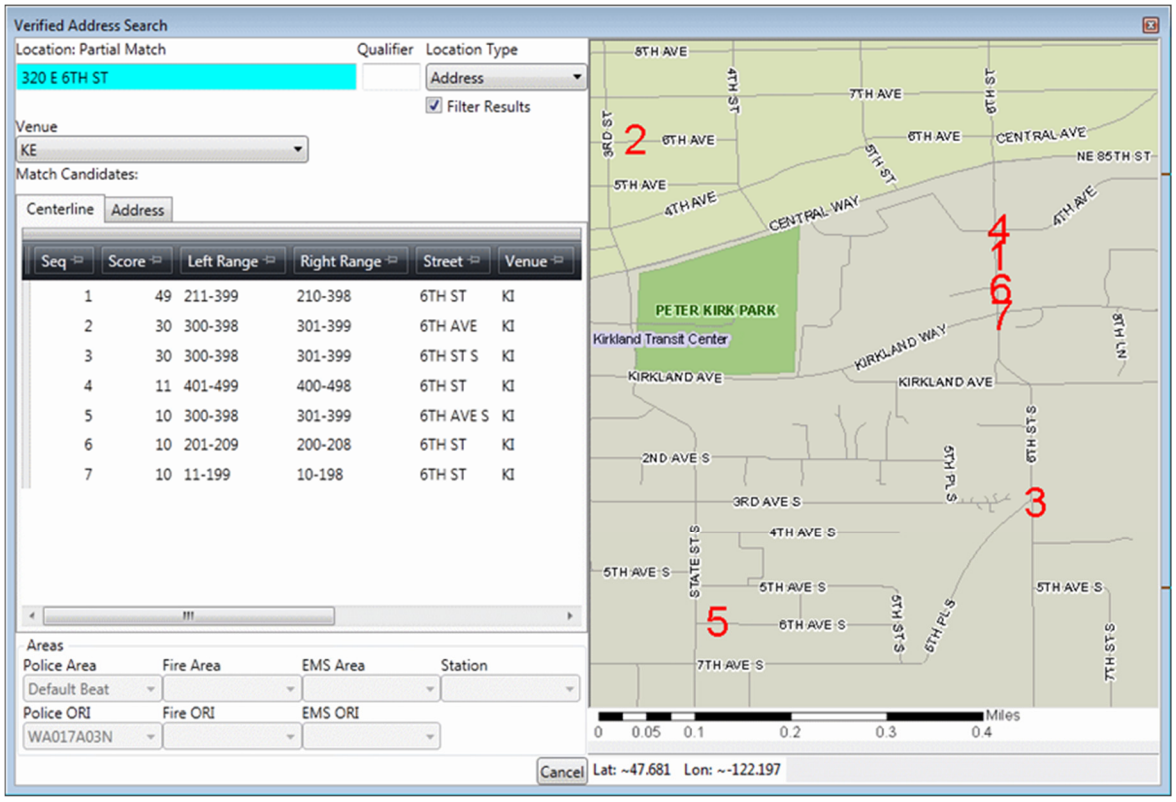
Search Functions

CAD Search Functions

The CAD toolbar group contains functionality related to searching for verified addresses, cleared calls, locations, units, contact cards, notepad items, building watches, fire hydrants, equipment, personnel, BOLOs and NCIC responses/requests. These tools allow users to quickly search for critical information to relay to agency personnel in the field.

Searching for Verified Addresses

The Verified Address Search window combines visual, field entry and grid control features to aid in locating a geo-verified address.



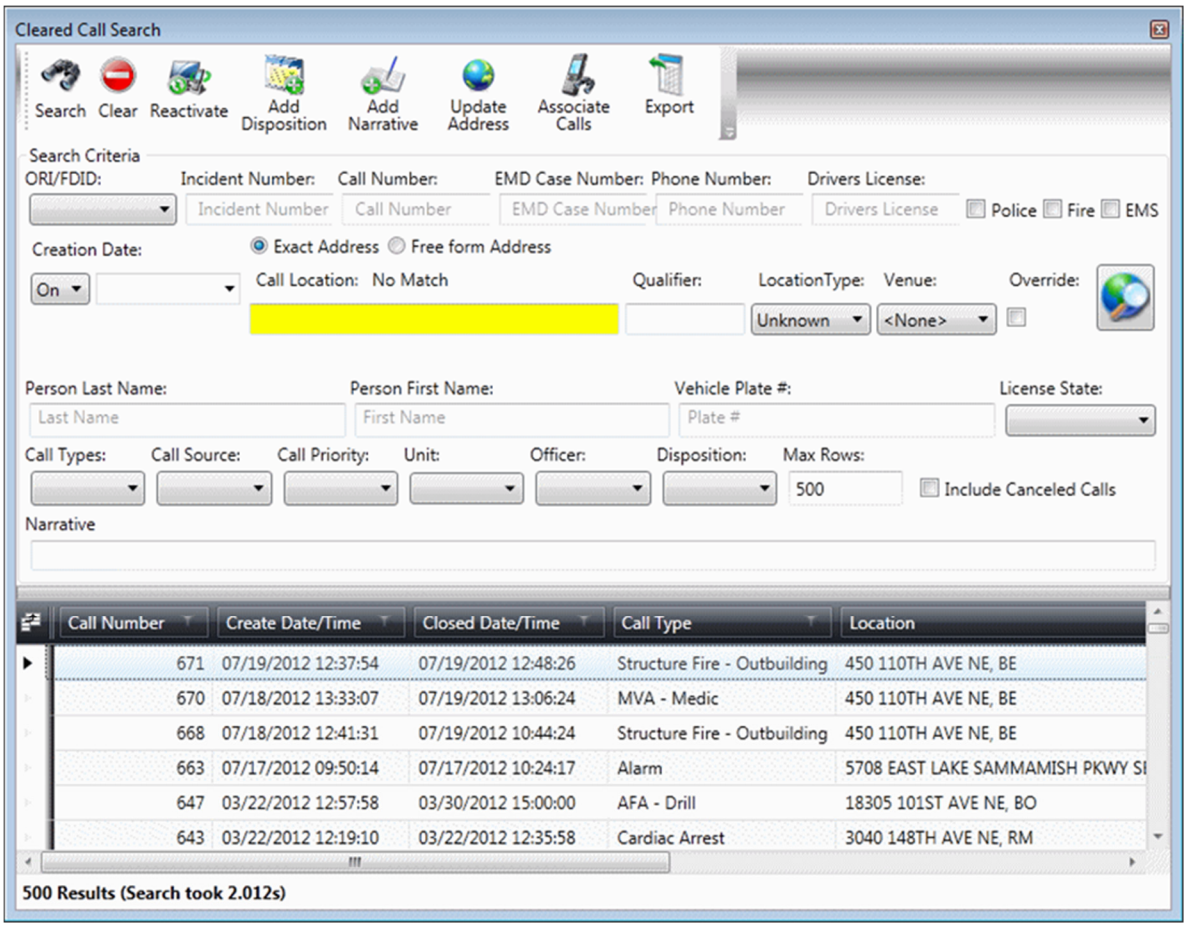
Geo-Validation Window displaying both text- and map-based match candidates.

This window allows users to geo-validate addresses without creating a CFS. This can be used to verify GIS data, validate response areas or simply plot the location on a map.

Searching for Cleared Calls

When a CFS is cleared, its information is saved in CAD (and the Records Management System (RMS)) as appropriate. The Cleared Call Search window, accessed by clicking the Cleared Calls toolbar button on the Search tab ribbon, allows authorized users to search the CAD system for cleared CFS. Cancelled calls may also be returned in the search results if specified in the search criteria. Calls can be searched by any combination of selection criteria.

Users have additional options such as reactivating a cleared call, adding a disposition to a cleared call, adding narrative to a cleared call, updating an address in a cleared call and associating calls to a cleared call.



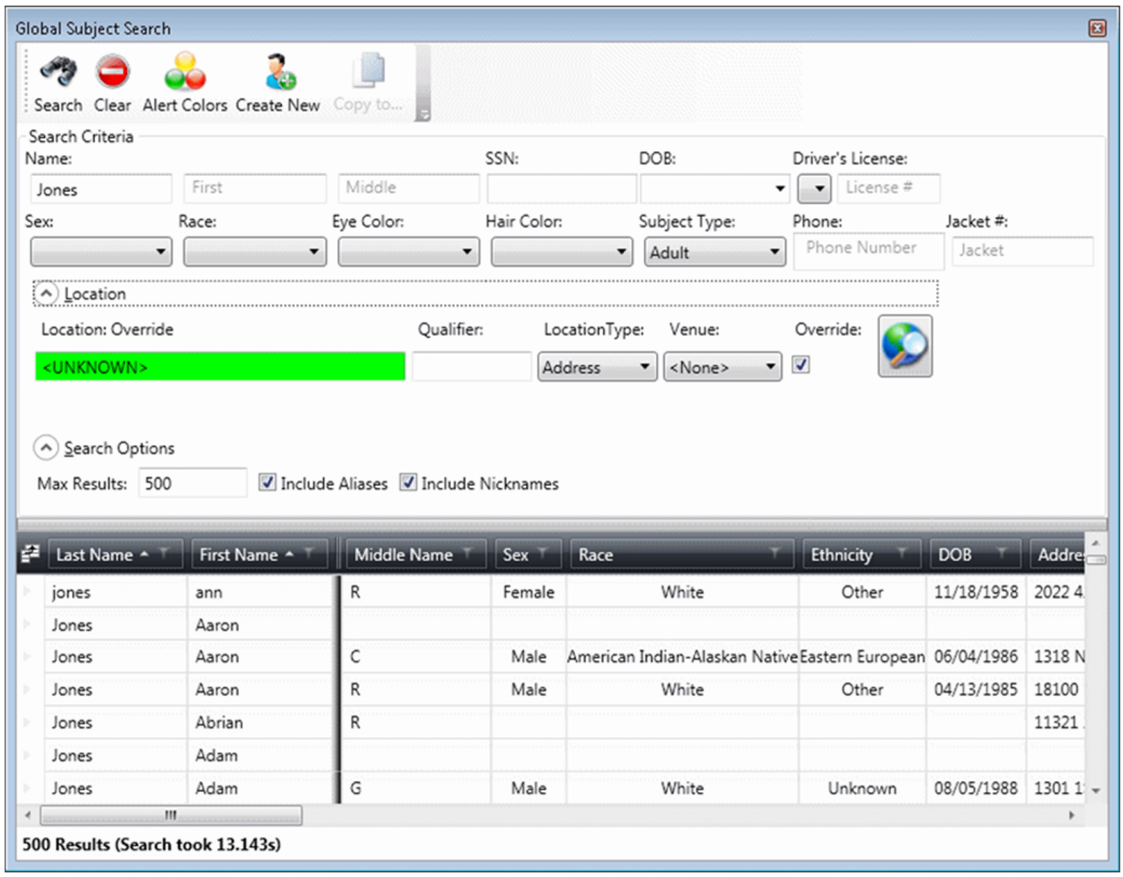
Cleared Call Search – The number of results display in the bottom status bar.

Records Search Functions

The Records toolbar group contains functionality related to searching for global subjects, global vehicles, hazardous materials, alerts and alarm permits. These tools allow users to quickly search for critical information to relay to agency personnel in the field.

Global Subjects

The Global Subject Search window is used to locate adult, juvenile and business global subject records. The global subject records that match the specified search criteria appear in the search results grid at the bottom of the window. Global subject records can be accessed within New World RMS, Corrections Management System (CMS), Fire and CAD.

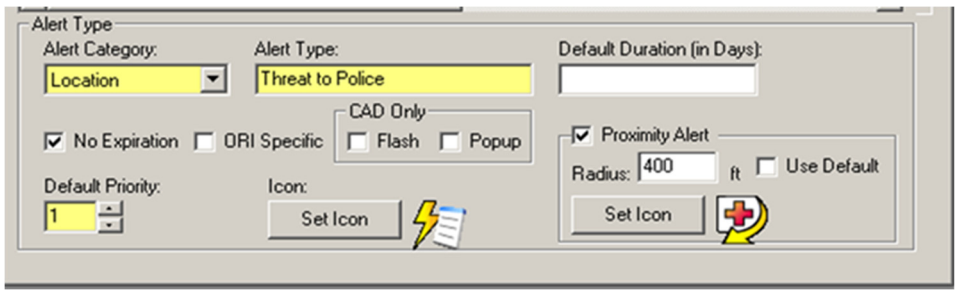


Global Subject Search from CAD.

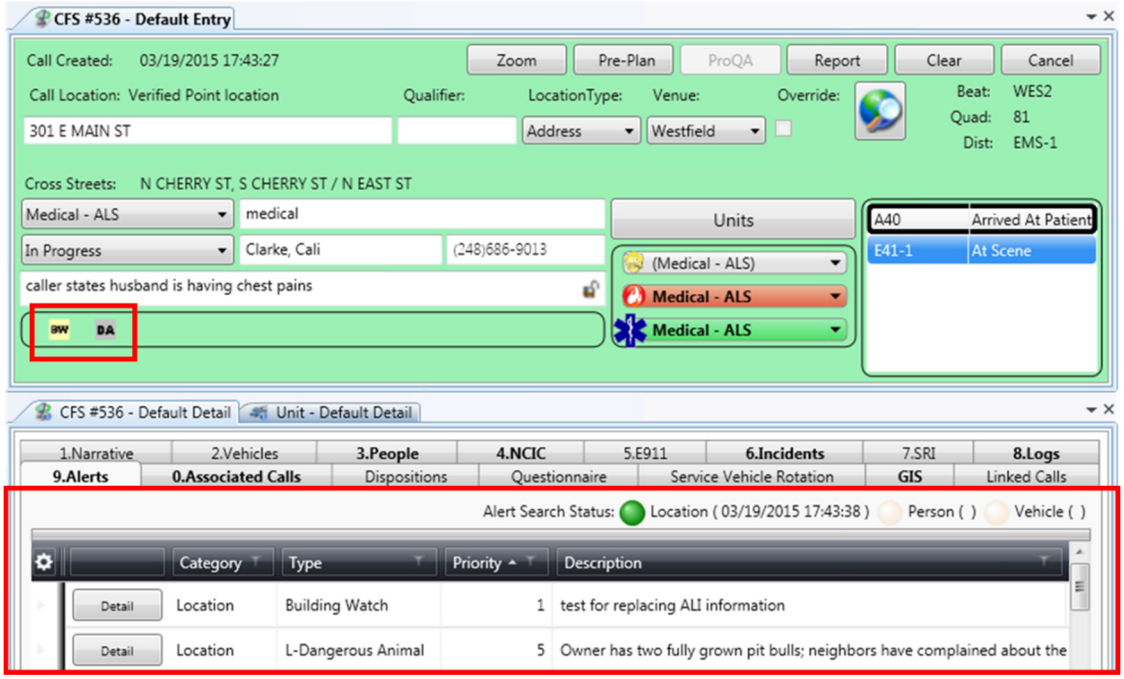
Alerts

Alerts help CAD dispatchers identify special conditions and possible threats to officer safety so that these situations can be relayed to dispatched units. Alerts cover a wide range of possibilities and are categorized by Person, Vehicle or Location. Examples of alerts include gun registrations, known offenders, location and building watches, known medical conditions, gang location and many others.

Alerts and hazards display automatically based on the CFS location, person or vehicle. A user can simply click on the icon or tab to view details. Alert types can be defined as proximity-based, which would trigger an alert whenever activity is within the set radius.



Alert Type Configuration – includes proximity settings.



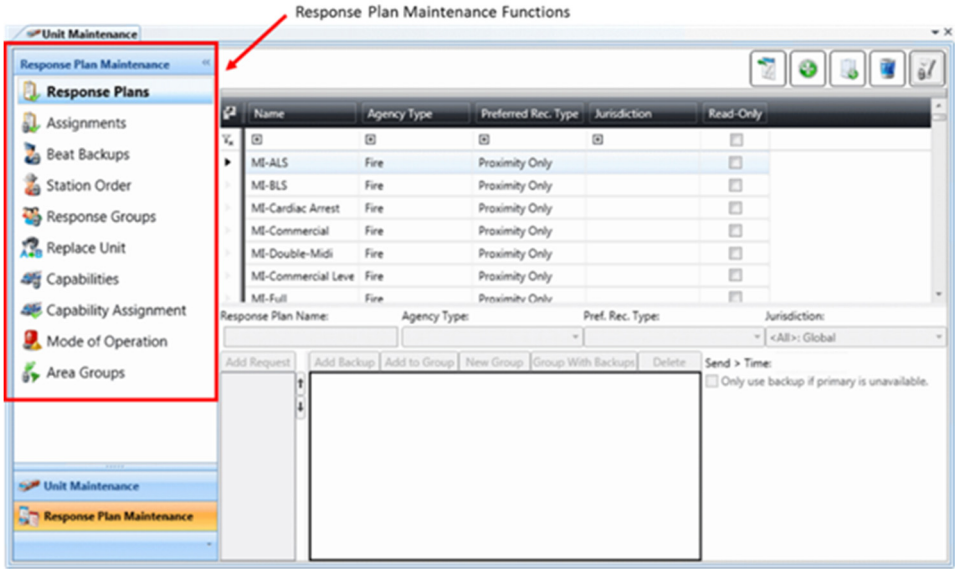
Sample CFS entry screen showing alert icons and alert details.

Maintenance Functions

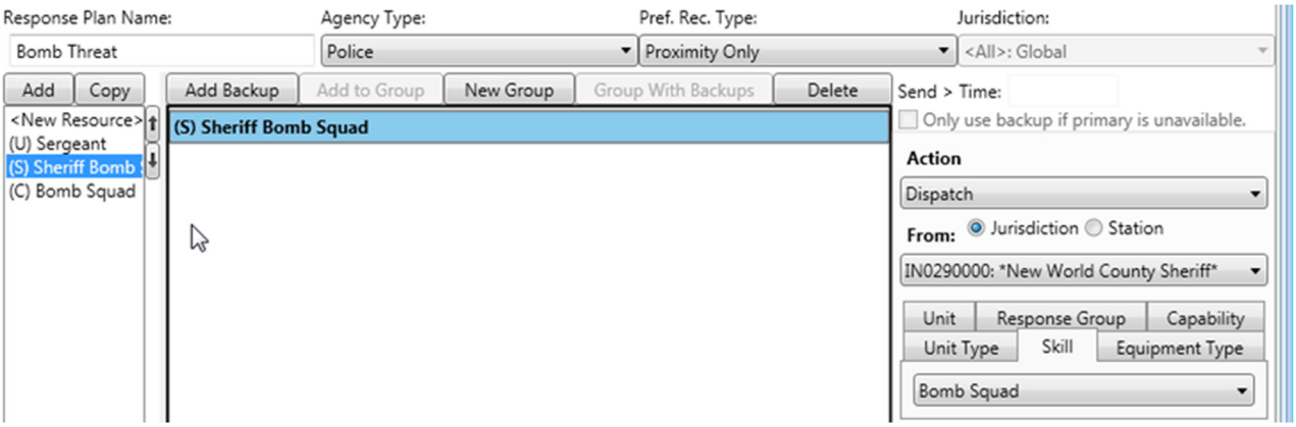
CAD features a number of maintenance options that allow dispatch personnel to configure different aspects of the software as needed.

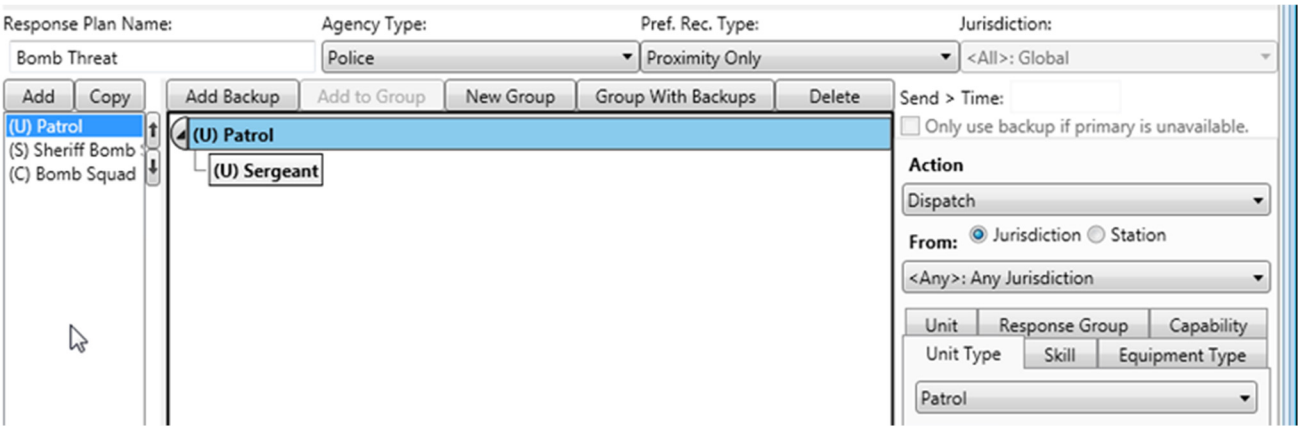
Response Plan Maintenance

The Response Plan Maintenance window allows system administrators to set up response plans, response plan assignments, beat backups, station order and response groups; replace a unit in the system; define and assign capabilities; define modes of operation; and set up area groups. Unit recommendations are driven by the configured response plans.



Response plans can be built to accommodate almost any scenario. For any given call type, the system can look for the closest unit-based type, skill, equipment and more.

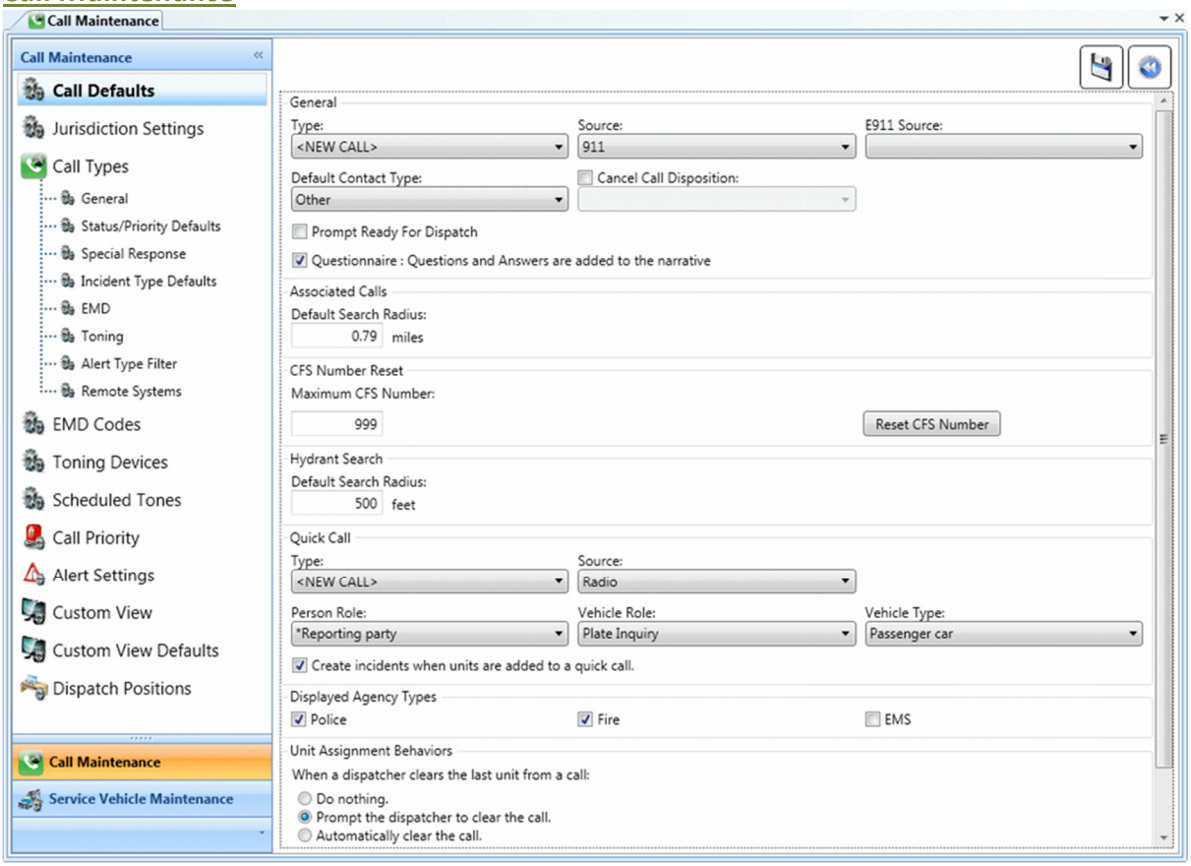




Calls Functions

The Calls toolbar group contains functionality related to setting up call defaults, jurisdictional settings, call types, EMD codes, toning devices, scheduled tones, alert settings, call priorities, custom user interface views, dispatch positions, service vehicle rotations, radio channels, questionnaires and paging.

Call Maintenance

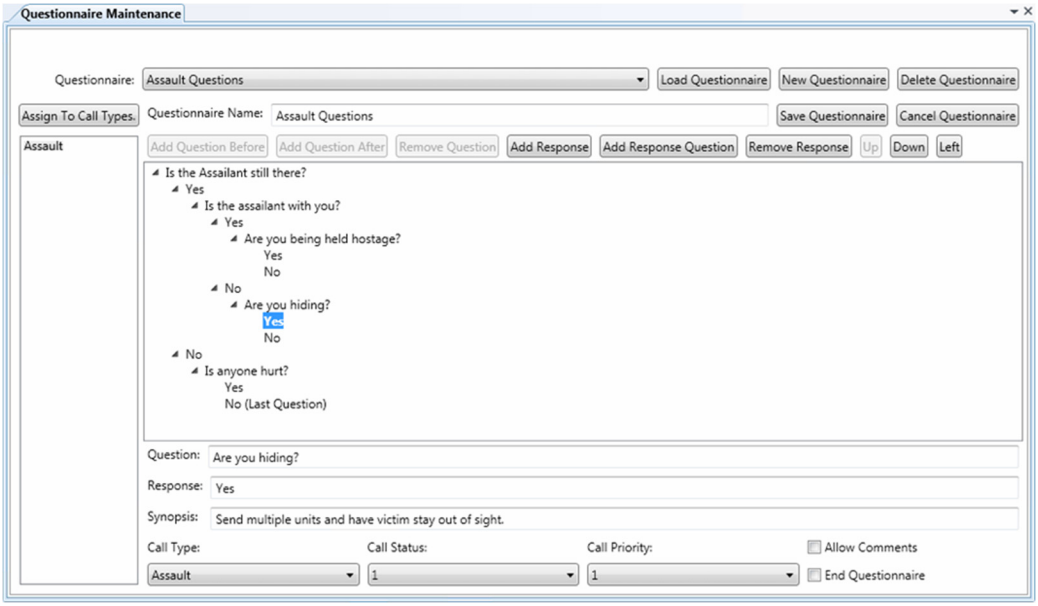


The Call Maintenance windows allows users to designate settings for call defaults, jurisdiction settings, call types, EMD codes, toning devices, scheduled tones, call priority, alert settings, custom views, custom view defaults, dispatch positions and service vehicle maintenance.

Questionnaire Maintenance

Questionnaires provide an automated set of standard questions based on the call type that a dispatcher can use to challenge or query the 911 caller. This can be used for infrequent high-risk call types (e.g., bomb threat) to provide a caller interrogation process or in place of other pre-arrival questionnaire systems. The question and response is captured with the CFS (and is sent to Mobile), creating a documented record of the process. Each question can have multiple possible responses and each response can link to another question.

The Questionnaire Maintenance window, accessed by clicking the Questionnaire button from the Maintenance tab ribbon, is used to create new questionnaires or to modify existing ones. This window allows you to add questions to a new or existing questionnaire. Everything that needs to be done to create or edit questionnaires is done from this window. Questionnaires are also assigned to specific call types so that when that type of call is received, dispatchers can ask the questions contained in the assigned questionnaire.

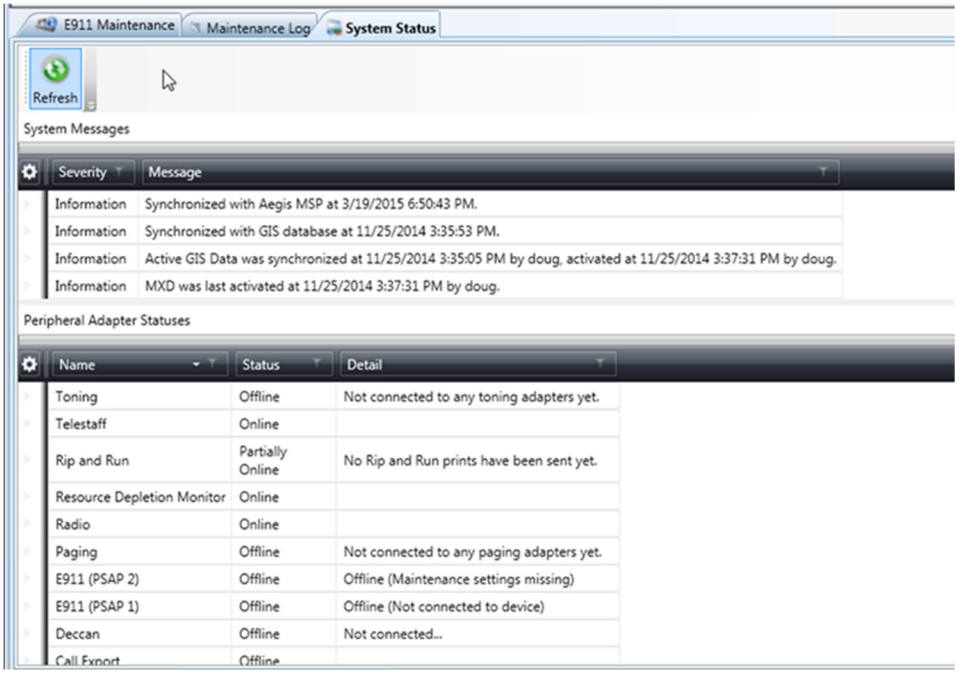


Standard Interfaces

Supported interfaces include New World CAD to New World CAD, CAD Pager, E911, NG911, State/NCIC, Pictometry, Pre-Arrival Questionnaire (ProQA Paramount, APCO and Powerphone), Encoder (Zetron Models 25, Locution and WestNet First In), Fire Records (Firehouse, First Watch and High Plains), Deccan LiveMUM and Telestaff.

System Status

The system status option displays operational and system messages. Both system messages and interface messaging and status can be displayed here.



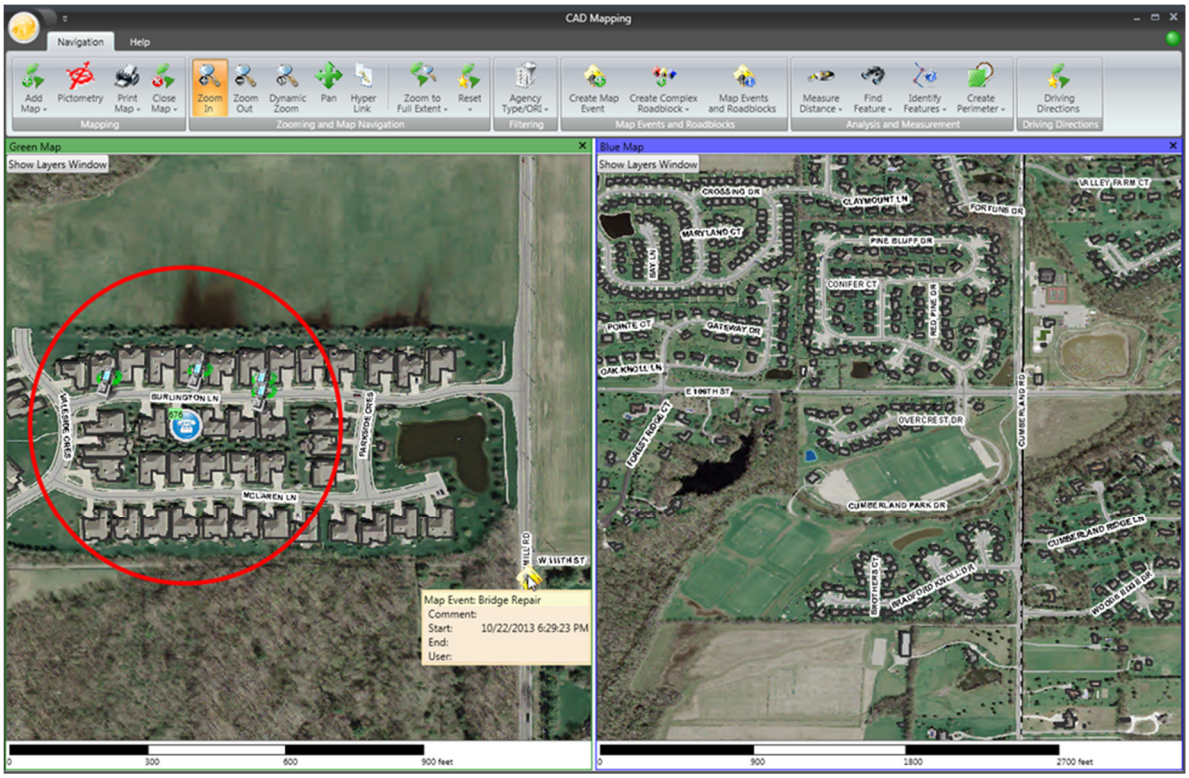
Maintenance Log

The Maintenance Log provides an audit view of all entries, deletions or changes made in CAD maintenance. This option provides a running change log of system settings and configuration. Administrators can also add their own notes to an entry to indicate why a change to the settings was made.

Mapping Client Functionality

CAD Mapping is designed to provide dispatchers with quick access to critical information and is an embedded component of the CAD application. With the customizable ribbon toolbar and configuration settings for many other features, CAD Mapping allows agencies to fully leverage all the Esri technology embedded with CAD.

Dispatchers can open up to three different maps within the same window or application container. This lets dispatchers focus on any particular call and still have a visual representation of their coverage area or any other geographical section.

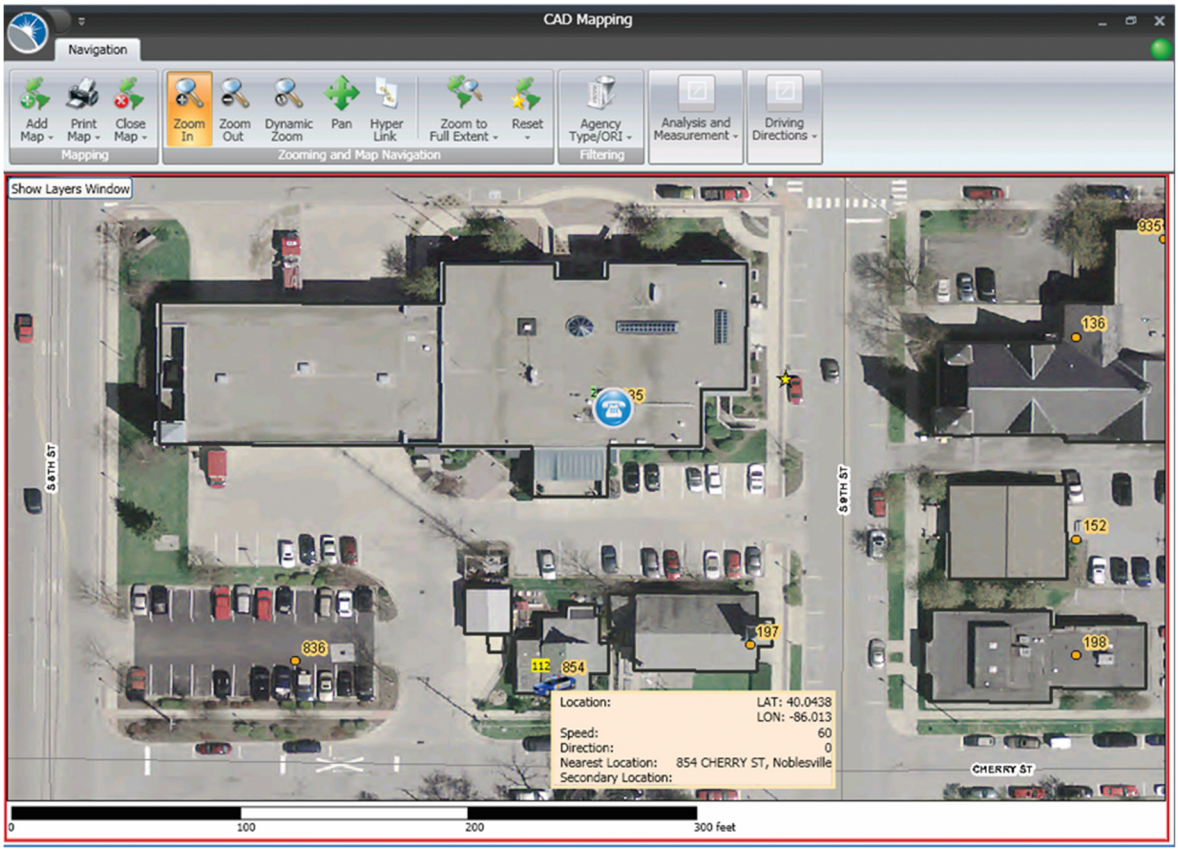


CAD Mapping showing a two-map view; the dispatcher has set a call perimeter in red on the left side while monitoring a wider area on the right.

CAD Mapping can be customized per user by creating templates that can filter calls and units as well as display only the toolbar buttons needed. Users can also set unit latency thresholds, which is the amount of time since the last AVL update. AVL-equipped units can be configured to show the color-coded AVL latency bar, direction of travel and time since last GPS update.

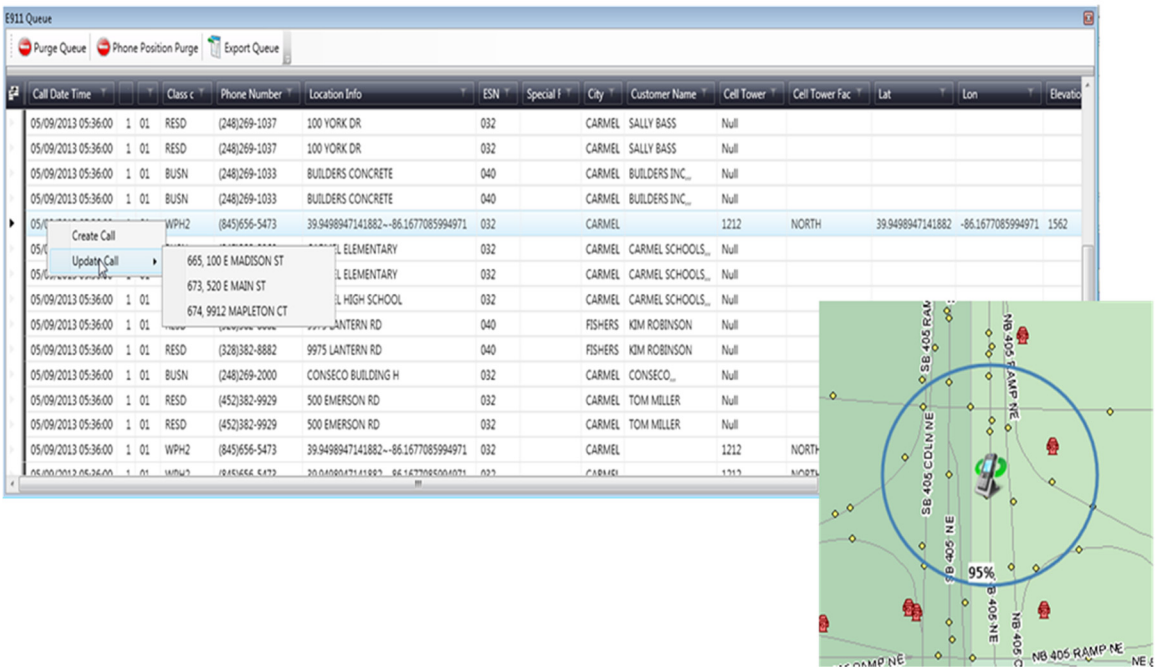
CAD Mapping – AVL unit showing latency bar.

E911 information comes in through the E911 interface. This interface accepts both landline and cell phone information (Phase I and Phase II) and has configuration options for parsing based on class of service.

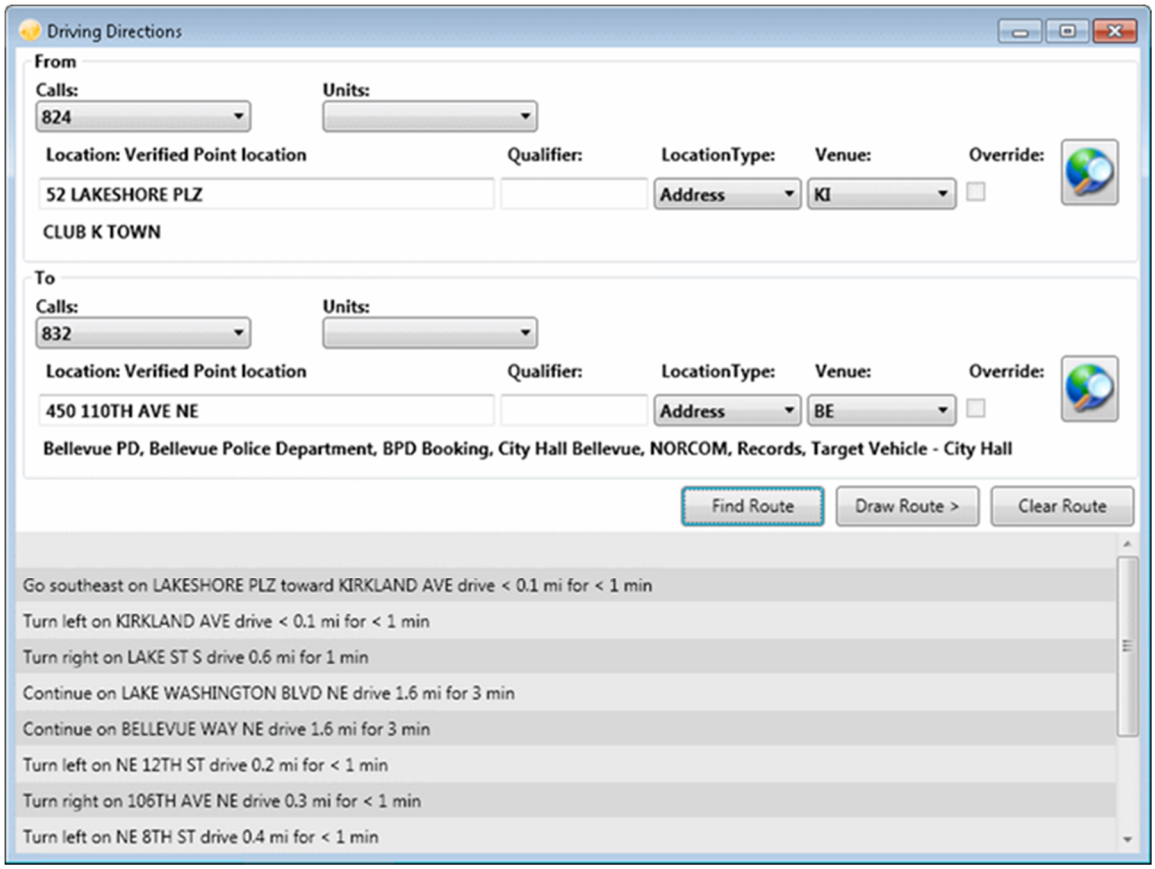


CAD Mapping window showing an E911 call location.

Phase II calls are plotted automatically on the CAD map as received; a user can select the incoming call from the E911 queue (or have it create the CFS automatically). The E911 queue provides an option for rebids, giving the user the choice to update the CFS or not, based on the information.



CAD E911 Queue with Phase II call automatically plotting on CAD Map and rebid showing.



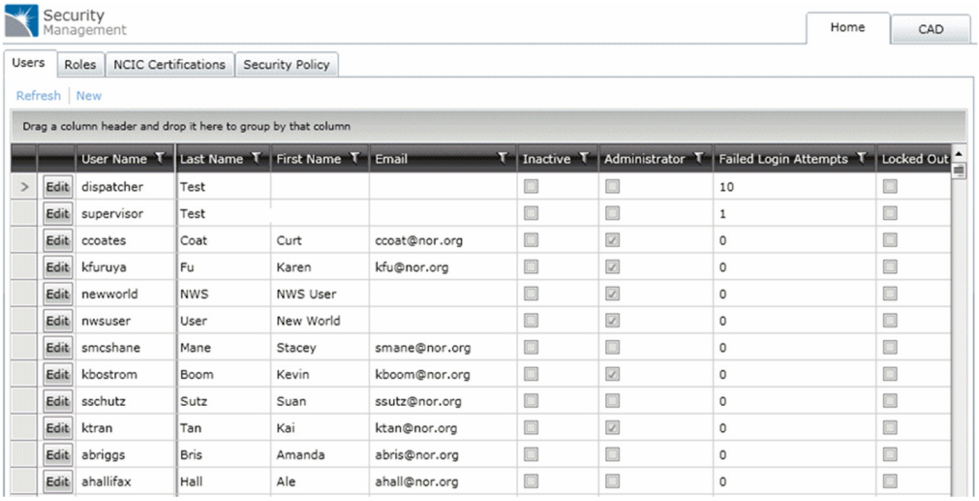
CAD Mapping – Driving Directions.

Application Security

The New World Security Management website allows system administrators to set up users and user permissions. Administrators can set up users, create roles, assign users to those roles, grant user permissions to various functions, define security settings, grant access to reports, assign specific maps for users and roles, assign jurisdictions for users and manage NCIC user access and certifications. Security can be configured to leverage Microsoft Active Directory for single sign on, streamlining the process for both users and system administrators.

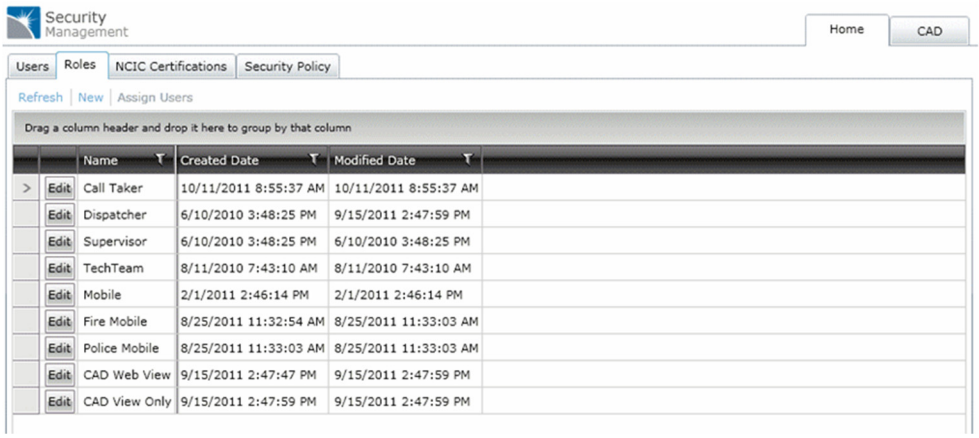
Maintaining/Defining Users

The Users sub-tab, which is the default view of the Home tab on the Security Management website, allows system administrators to add new users, edit or inactivate existing users, denote which users are administrators and set password parameters. They also have the ability to reset user passwords.



Creating/Assigning Roles

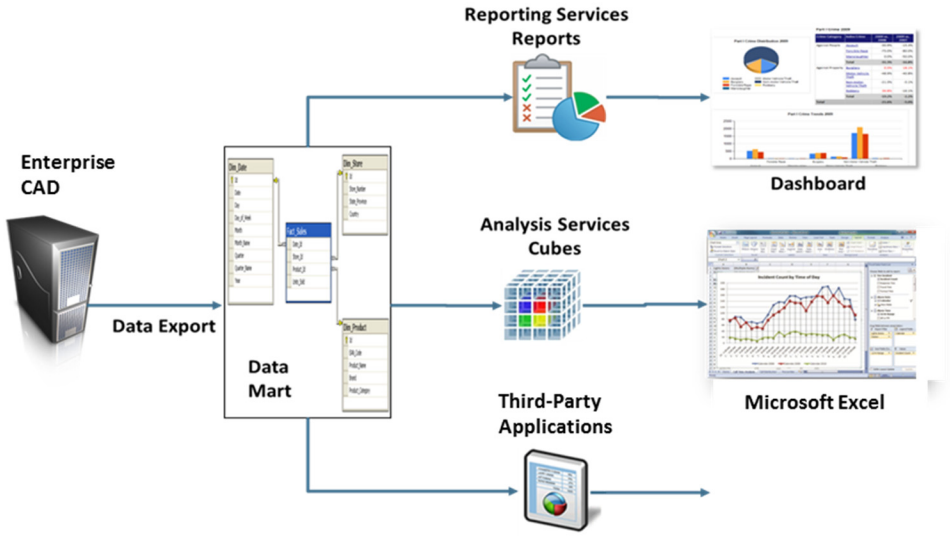
The Roles sub-tab allows system administrators to define, edit and assign various roles within CAD. These roles are then granted permissions and assigned to specific users. For larger agencies, this capability makes managing the permissions of several employees a nearly effortless task.



Reporting

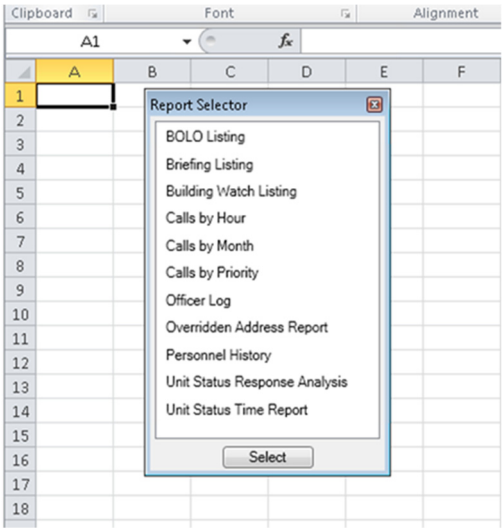
Standard Reports

The CAD Reporting feature can be accessed from the application and uses Microsoft Excel to render reports. The data mart that it uses is separate from the production CAD database and automatically updates according to a configurable schedule. This process updates the reporting data mart and performs the appropriate data transformations to "flatten" the transactional production database into a format best suited for reporting and analytics.

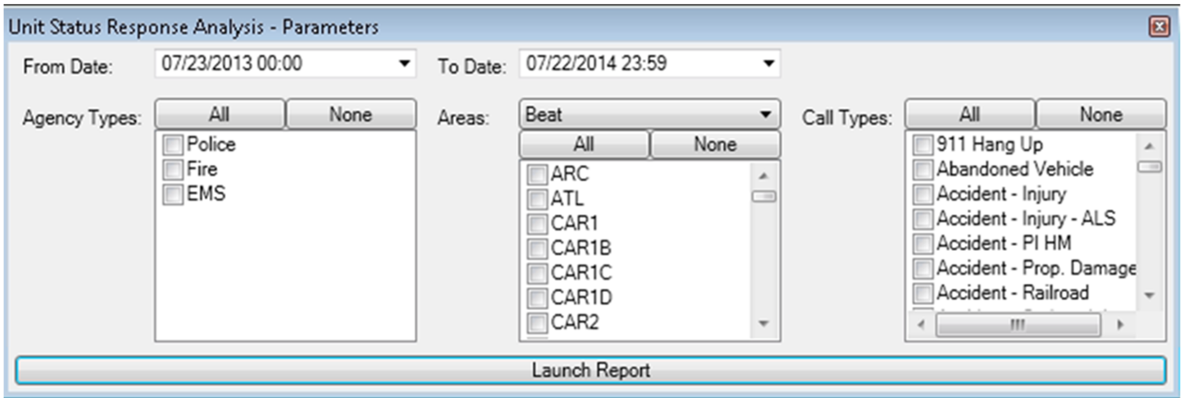


CAD Reporting Architecture Overview.

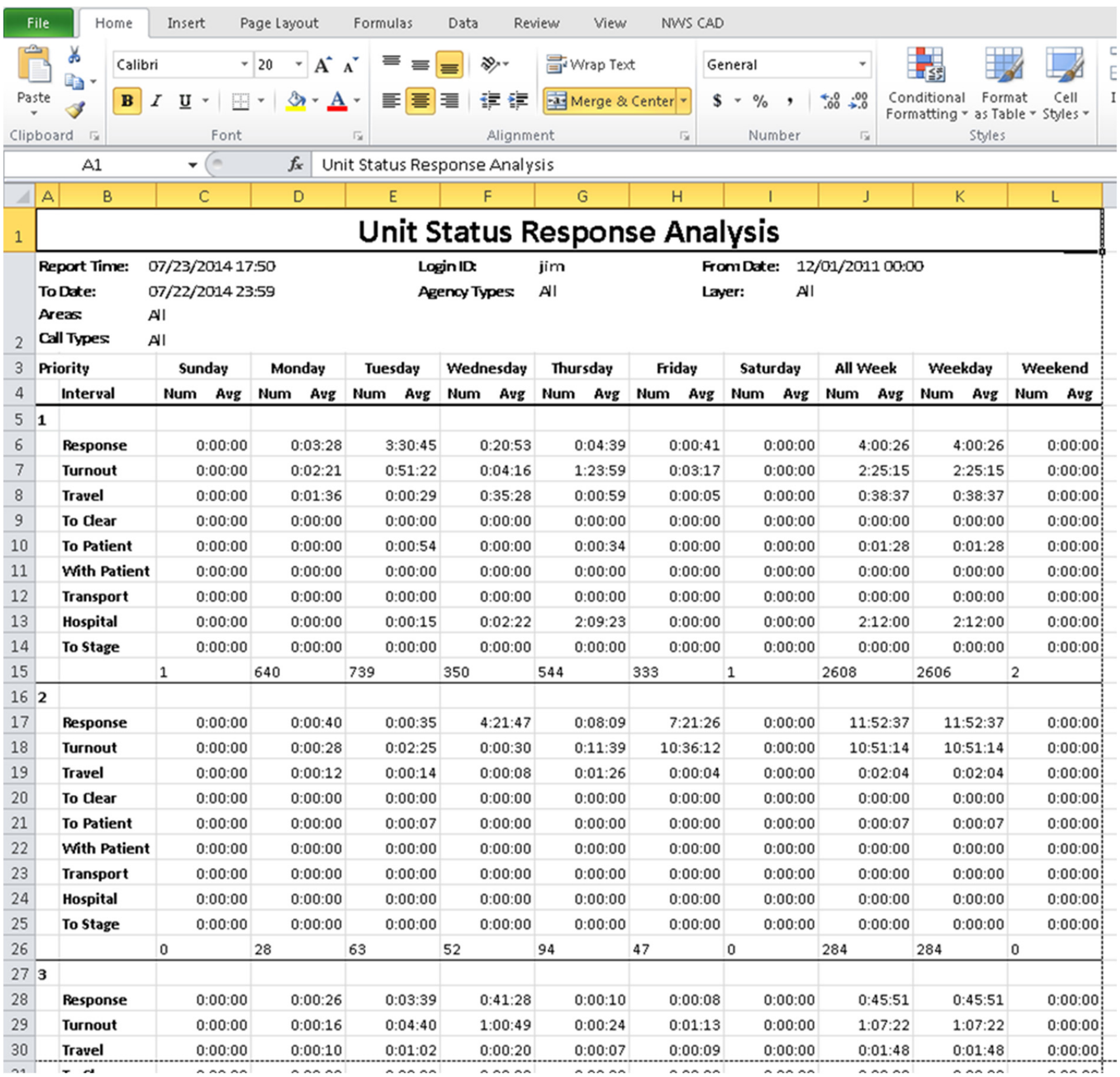
CAD Reporting also includes the SQL Server data cubes used for the standard reports. Microsoft Excel is used to connect to the existing data cubes, but any third-party application that supports SQL Server database connectivity could also be used. Additional data cubes can be added (if needed) using SQL Server.



CAD Report Selector.



Report Selection Parameters.



Unit Status Response Analysis

Report Time: 07/23/2014 17:50 Login ID: jim From Date: 12/01/2011 00:00
To Date: 07/22/2014 23:59 Agency Types: All Layer: All
Areas: All
Call Types: All

Priority	Interval	Sunday Num	Sunday Avg	Monday Num	Monday Avg	Tuesday Num	Tuesday Avg	Wednesday Num	Wednesday Avg	Thursday Num	Thursday Avg	Friday Num	Friday Avg	Saturday Num	Saturday Avg	All Week Num	All Week Avg	Weekday Num	Weekday Avg	Weekend Num	Weekend Avg
1																					
	Response		0:00:00		0:03:28		3:30:45		0:20:53		0:04:39		0:00:41		0:00:00		4:00:26		4:00:26		0:00:00
	Turnout		0:00:00		0:02:21		0:51:22		0:04:16		1:23:59		0:03:17		0:00:00		2:25:15		2:25:15		0:00:00
	Travel		0:00:00		0:01:36		0:00:29		0:35:28		0:00:59		0:00:05		0:00:00		0:38:37		0:38:37		0:00:00
	To Clear		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00
	To Patient		0:00:00		0:00:00		0:00:54		0:00:00		0:00:34		0:00:00		0:00:00		0:01:28		0:01:28		0:00:00
	With Patient		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00
	Transport		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00
	Hospital		0:00:00		0:00:00		0:00:15		0:02:22		2:09:23		0:00:00		0:00:00		2:12:00		2:12:00		0:00:00
	To Stage		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00
		1		640		739		350		544		333		1		2608		2606		2	
2																					
	Response		0:00:00		0:00:40		0:00:35		4:21:47		0:08:09		7:21:26		0:00:00		11:52:37		11:52:37		0:00:00
	Turnout		0:00:00		0:00:28		0:02:25		0:00:30		0:11:39		10:36:12		0:00:00		10:51:14		10:51:14		0:00:00
	Travel		0:00:00		0:00:12		0:00:14		0:00:08		0:01:26		0:00:04		0:00:00		0:02:04		0:02:04		0:00:00
	To Clear		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00
	To Patient		0:00:00		0:00:00		0:00:07		0:00:00		0:00:00		0:00:00		0:00:00		0:00:07		0:00:07		0:00:00
	With Patient		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00
	Transport		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00
	Hospital		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00
	To Stage		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00		0:00:00
		0		28		63		52		94		47		0		284		284		0	
3																					
	Response		0:00:00		0:00:26		0:03:39		0:41:28		0:00:10		0:00:08		0:00:00		0:45:51		0:45:51		0:00:00
	Turnout		0:00:00		0:00:16		0:04:40		1:00:49		0:00:24		0:01:13		0:00:00		1:07:22		1:07:22		0:00:00
	Travel		0:00:00		0:00:10		0:01:02		0:00:20		0:00:07		0:00:09		0:00:00		0:01:48		0:01:48		0:00:00

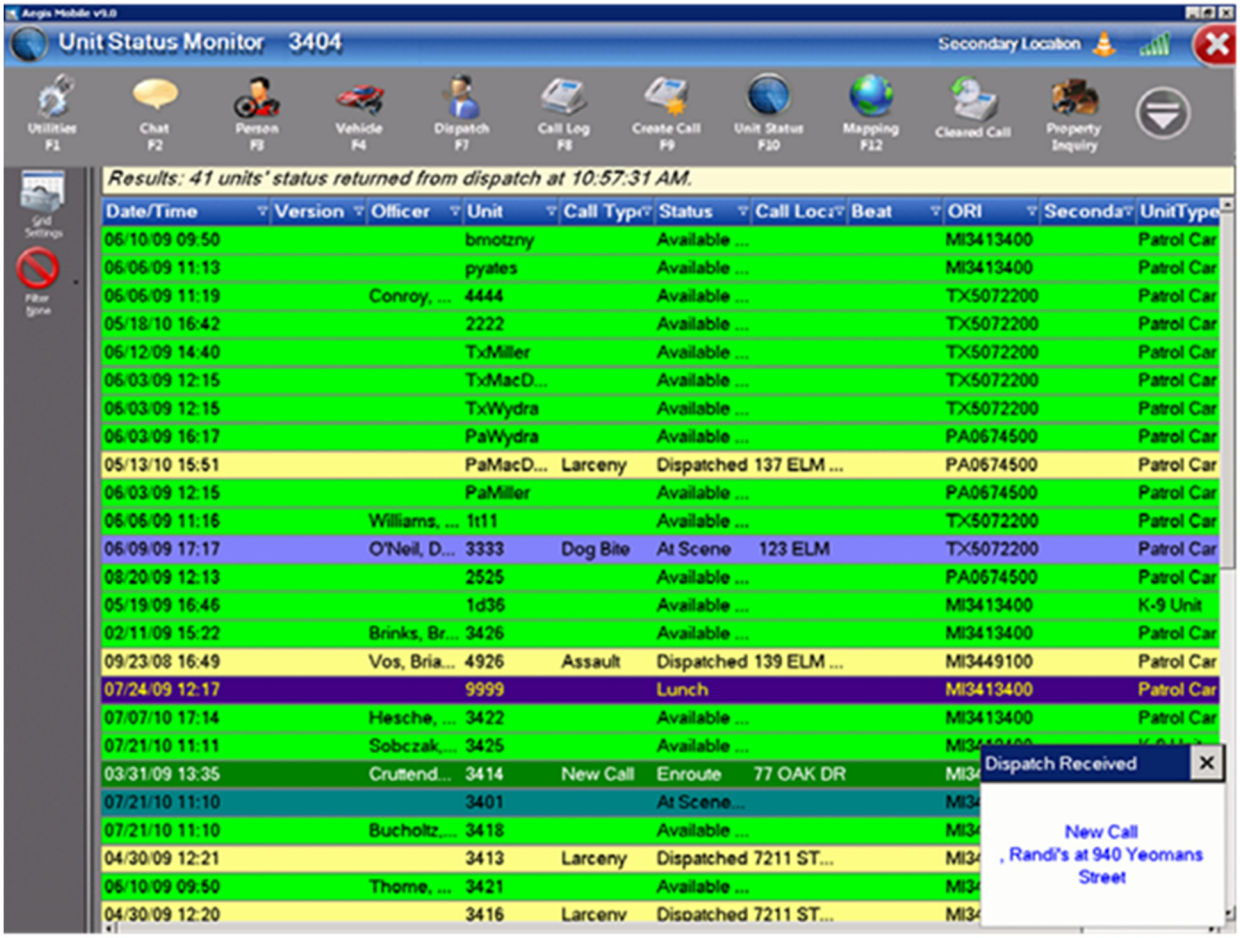
Sample Standard CAD Report.

CAD Reporting also enables agencies to use browser-based dashboards to monitor activity and provide a graphical view of information using a browser. The system includes several Dashboard Gadgets with CAD Reporting: Calls by Agency Chart, Calls by Agency Map and Calls by Agency Key Performance Indicator (KPI).

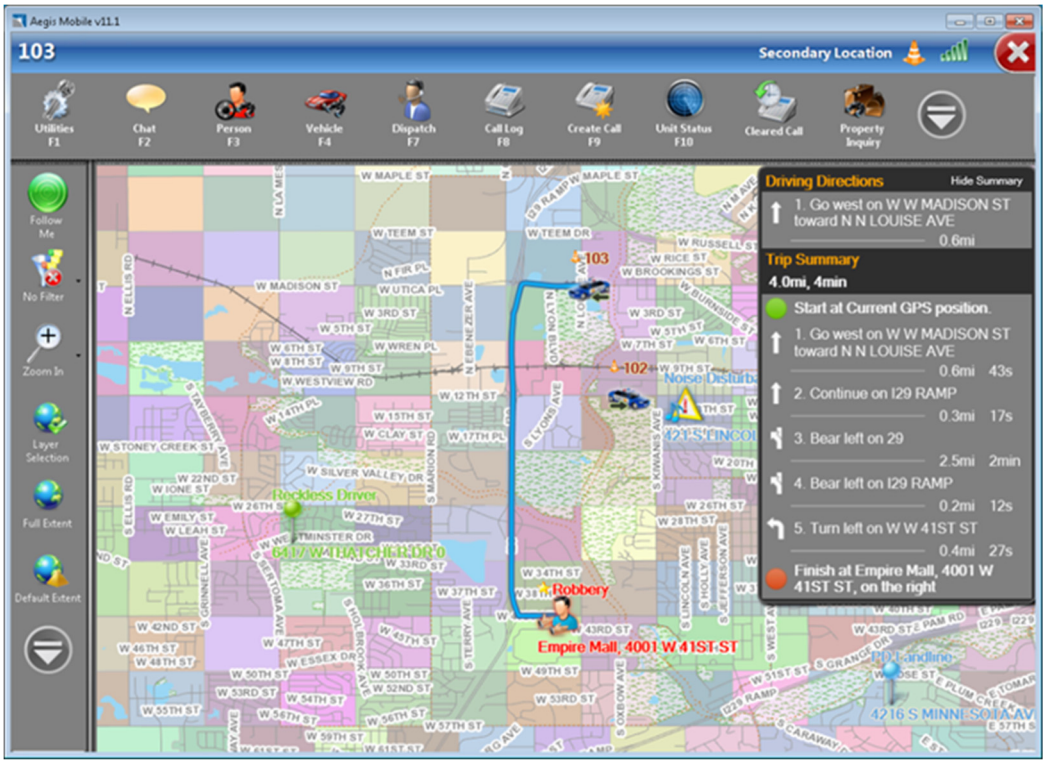
New World Message Switch and Mobile Data System

Tyler's New World Mobile solution is built using the latest Microsoft .NET architecture and designed to operate in both connected and disconnected mode. Mobile is tightly integrated with the New World CAD solution and the rest of the New World suite. The solution comprises two separate client applications: Law Enforcement and Fire.

New World Mobile includes a dynamic unit status monitor. As unit information updates occur, the dispatched mobile units receive information from CAD automatically, so first responders have immediate access to call information including all potential alerts and hazards.



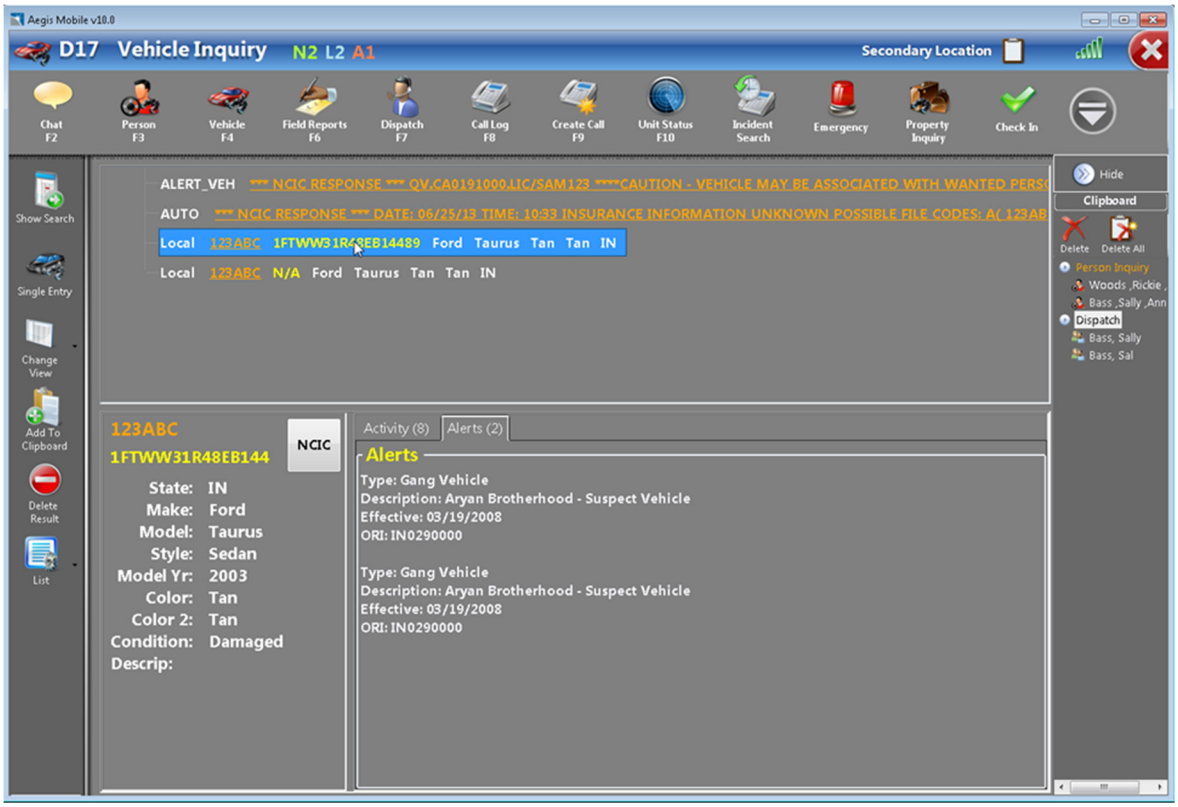
With Mobile Mapping, the dispatched location is plotted on the map and AVL-equipped units will see both their unit and the CFS. With the routing component, Mobile will display the route both graphically and using turn by turn directions.



New World Mobile is designed to leverage touchscreen capabilities. Navigation and toolbar buttons are easily accessible. One click initiates night mode, which changes the display for low-light conditions.

New World Mobile - Night mode.

Mobile users also have one-click access to active and pending calls and can self-dispatch based on agency configuration. Officer-initiated activity (citizen assists, traffic stops, etc.) can be created from Mobile, while entered subject and vehicle information can automatically query the local New World system and State/NCIC. With response parsing configured, Mobile can change the response message text so that critical information is not overlooked. Important State/NCIC responses for both subjects and vehicles that originate from Mobile can be automatically forwarded to dispatch and other mobile units.

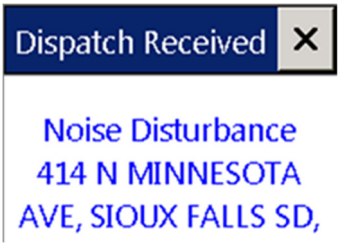


Vehicle Inquiry – Mobile parsing points out critical response information.

Functionality between CAD and Mobile includes:

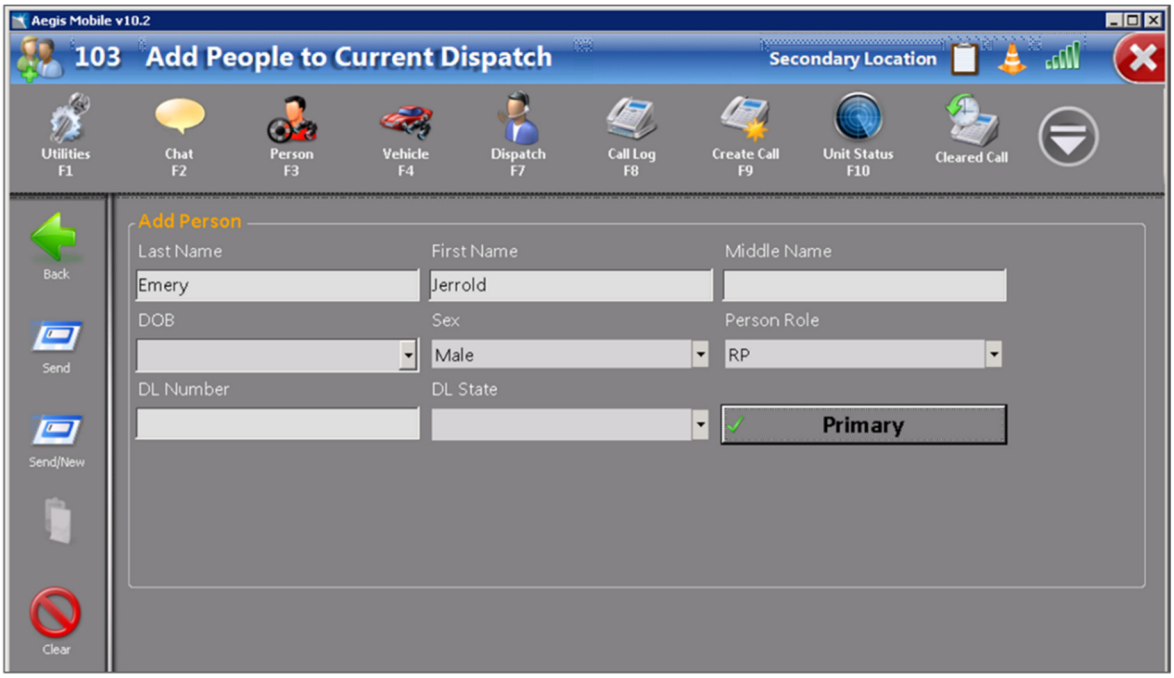
- Dispatch (dispatch screen)
- Self- Dispatch to pending or active calls
- Unit Status Monitor
- Alerts
- Chat/Messaging
- BOLOs
- Cleared Call Search
- Call Log (active and pending)
- Quick Call (officer-initiated activity)
- Preplans
- Emergency Button
- Person and Vehicle Inquiry
- Unit Check-In
- AVL and Mapping

Mobile notifications occur based on agency configuration. “Toast” will pop up in the bottom-right corner of the screen without stealing focus, but staying in front of other screens. Users simply click on the notification window to view the details and remove the notification.



Mobile Notification "Toast."

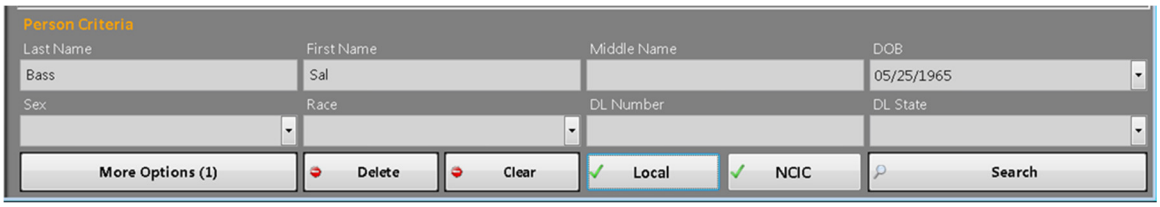
AVL information updates CAD and other mobile units to assist with situational awareness and proximity dispatch. This helps ensure that citizens receive the quickest help possible, while first responders remain protected by having critical information.



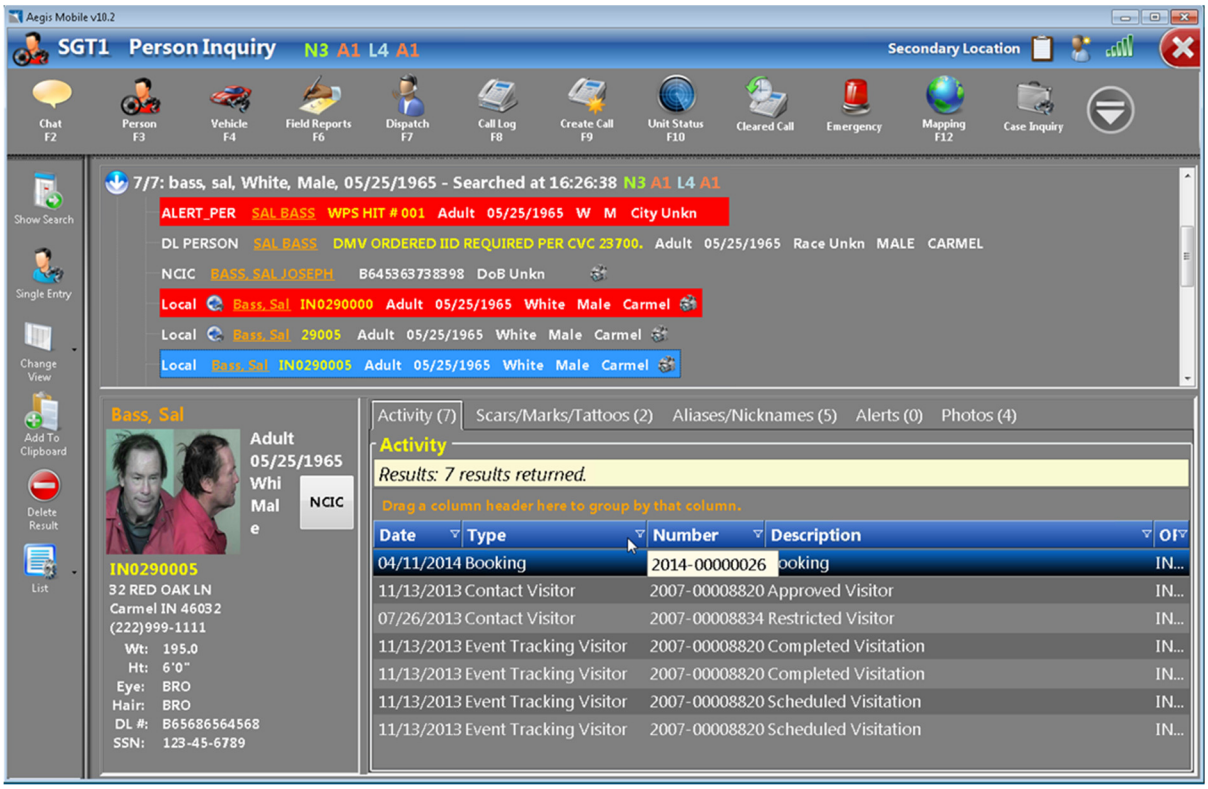
Mobile officers can add to the CFS.
Add Person/Vehicle/Narrative:

- Leverages data from multiple sources (Driver's License Import and NCIC Responses) – no need to rekey
- Can add person's role (association) to the CFS

Searching subjects and vehicles across State/NCIC, local systems and other databases is done from one entry form. An officer simply enters information and selects (or unselects) the systems to be searched. Responses return in the configured response format layout (grid or contact card). Configurable response message parsing can change the response message to ensure that critical information is not overlooked. Mobile also supports driver's license bar code readers.



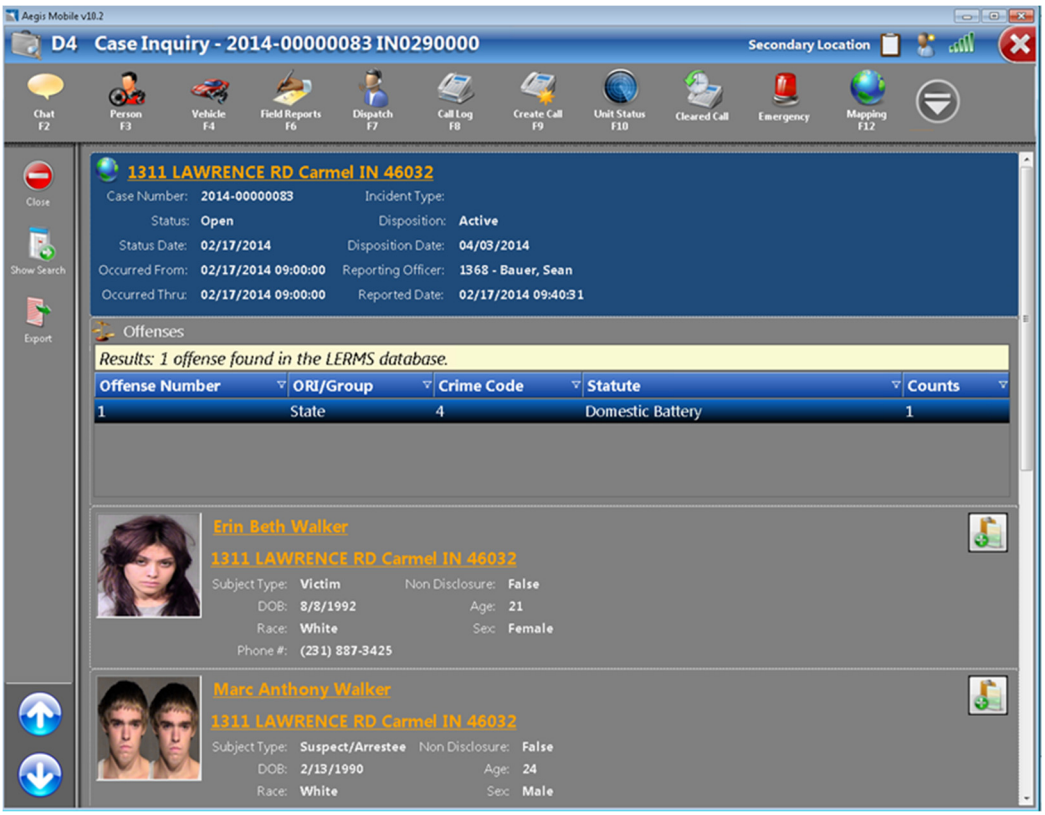
Mobile Subject Search.



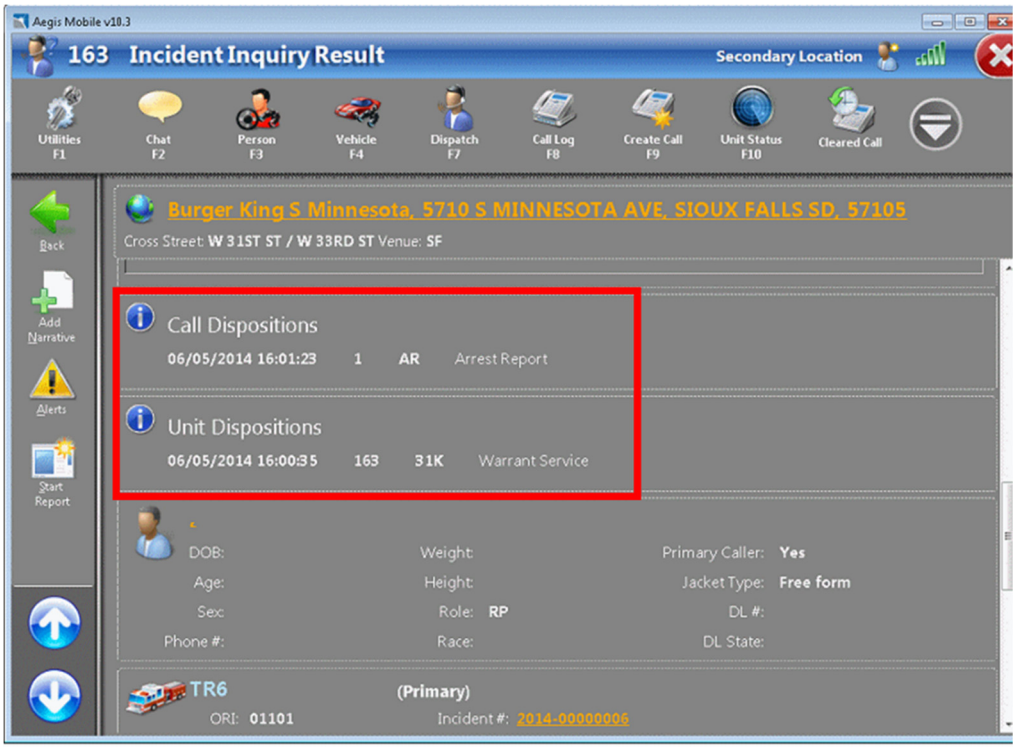
Person Inquiry with photo and multiple local records (parsing is being used to highlight critical responses in red).

Additional Mobile Inquiries (RMS/CMS) include:

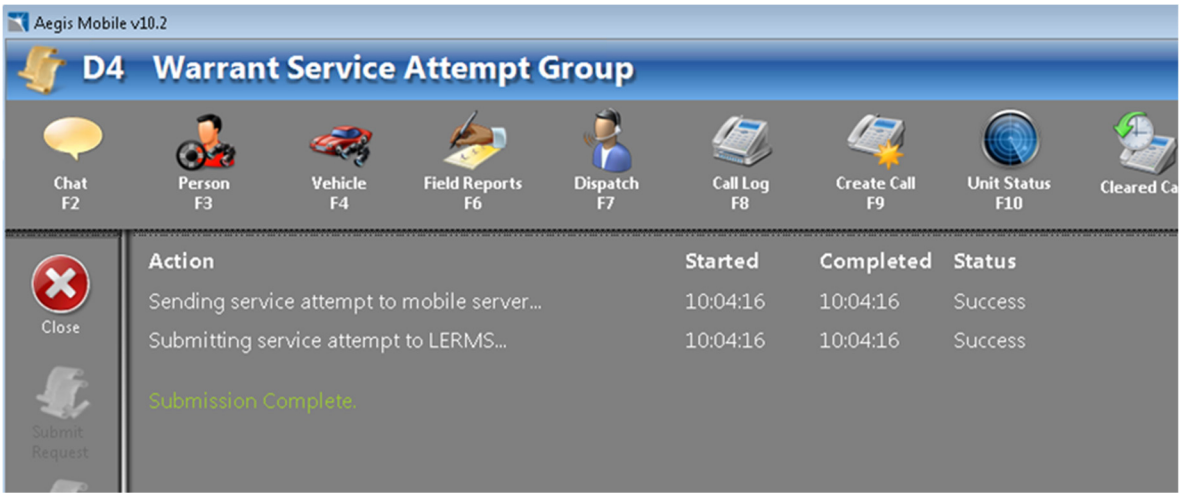
- Incidents
- Cases
- Wants and Warrants
- Warrant Service Entry
- Property
- Booking
- Unit Logs



Mobile Case Inquiry.

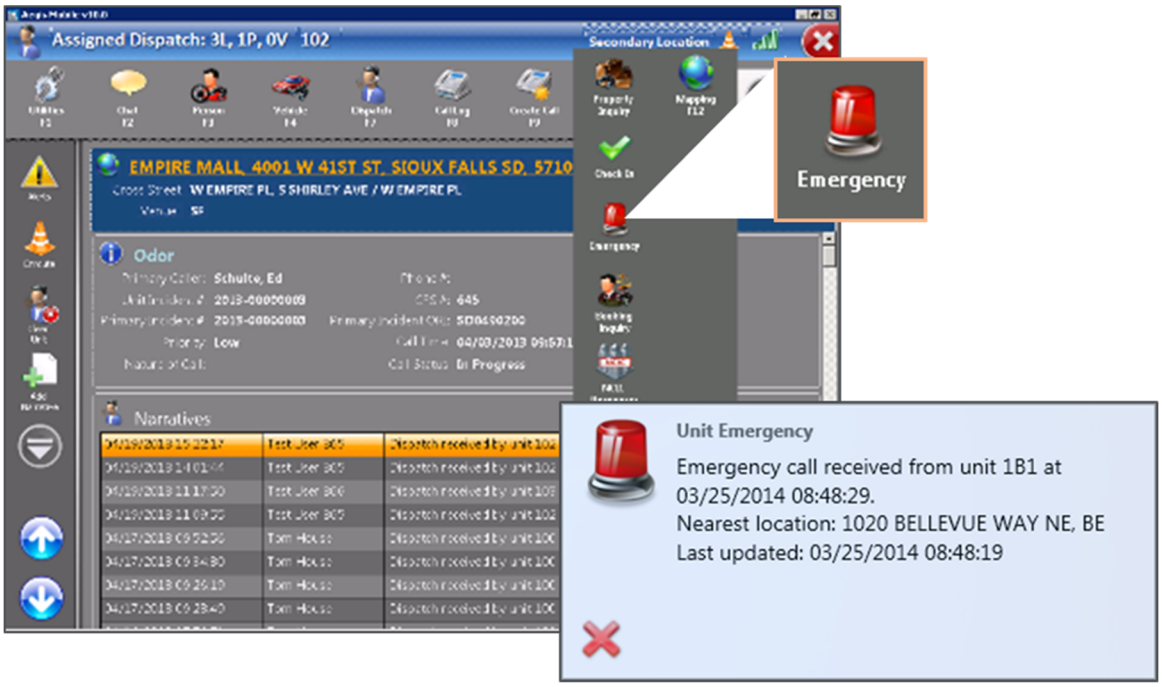


Mobile Incident Inquiry showing both Call and Unit dispositions.

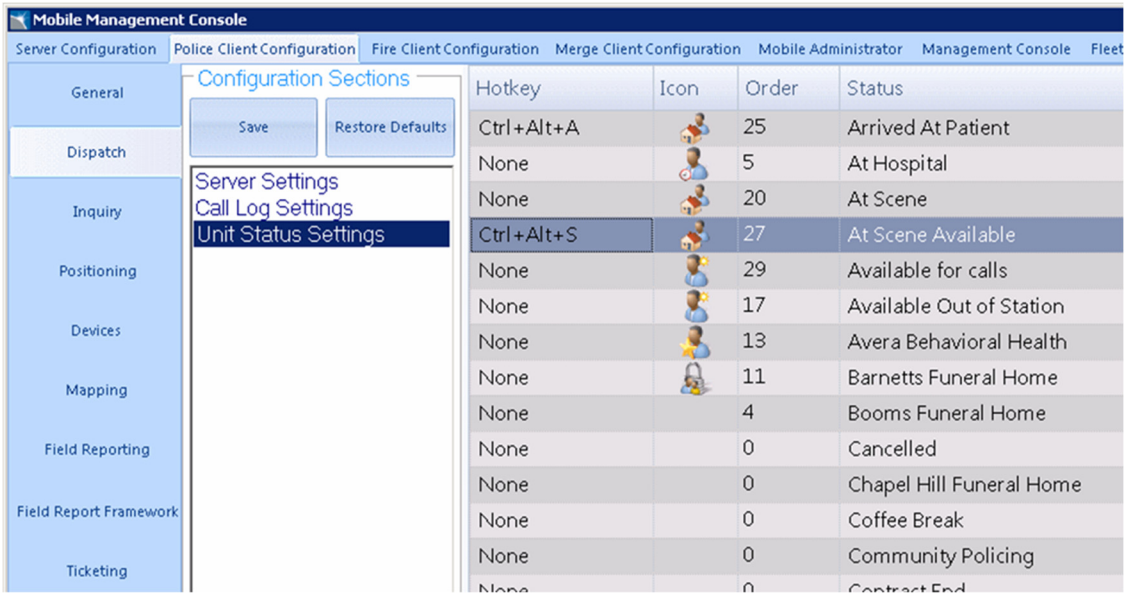


Updating Warrant Service from Mobile –RMS gets real-time updates that are available to all other users.

Mobile also includes Emergency Button functionality, which can alert both dispatch and other mobile units. Response message (State/NCIC and RMS) can also be configured to notify other mobile users when the message contains specific text (e.g., Wanted Person). These notifications can be limited to units within an area or radius.

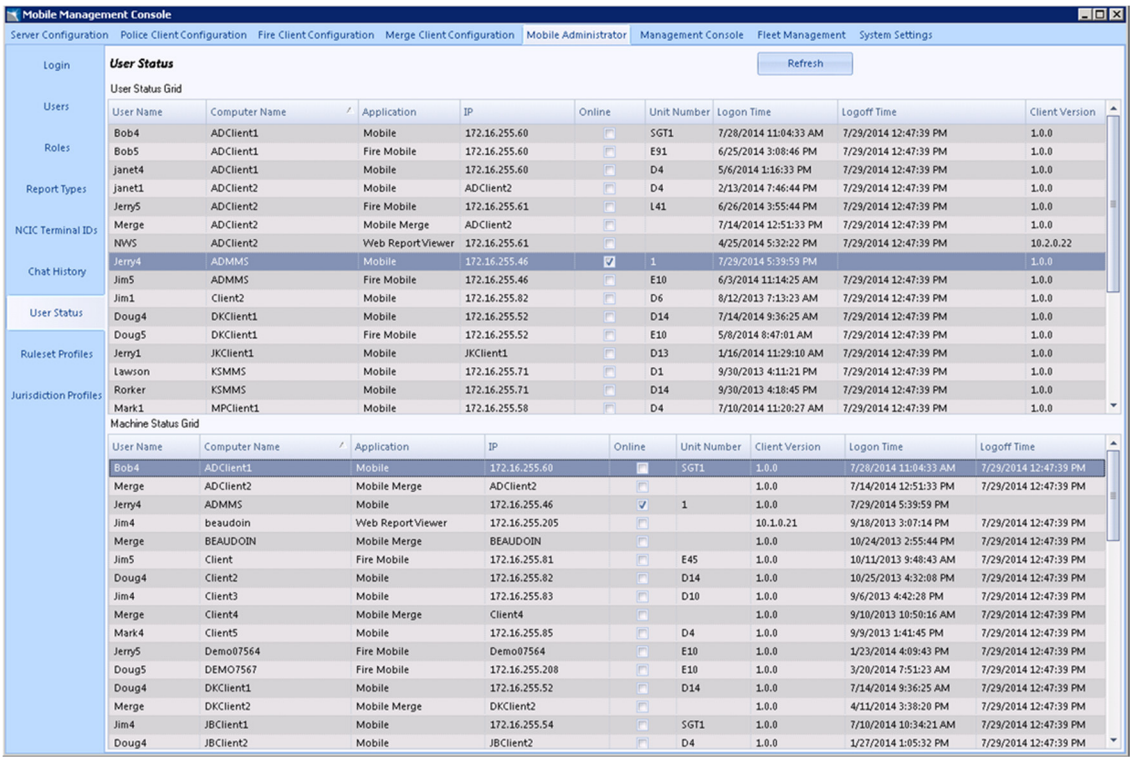


Mobile and Field-Based Reporting will pull all the appropriate settings and configuration needed from New World CAD and RMS. Call types, unit statuses, drop-down lists and mapping data are automatically managed by the Mobile server, keeping CAD and Mobile clients in synch.



Configuring Mobile Unit Status Icons and Hotkeys –available unit statuses download from CAD.

Mobile Administrators can configure most Mobile-specific functionality to include the main toolbar, map icons and colors, logon fields and more. Mobile includes a Fleet Management function that makes it easy for an administrator to update all Mobile clients. Mobile clients will download the update in the background without impacting the user experience or saturating the available bandwidth. Mobile administrators also have a real-time view of their fleet status.



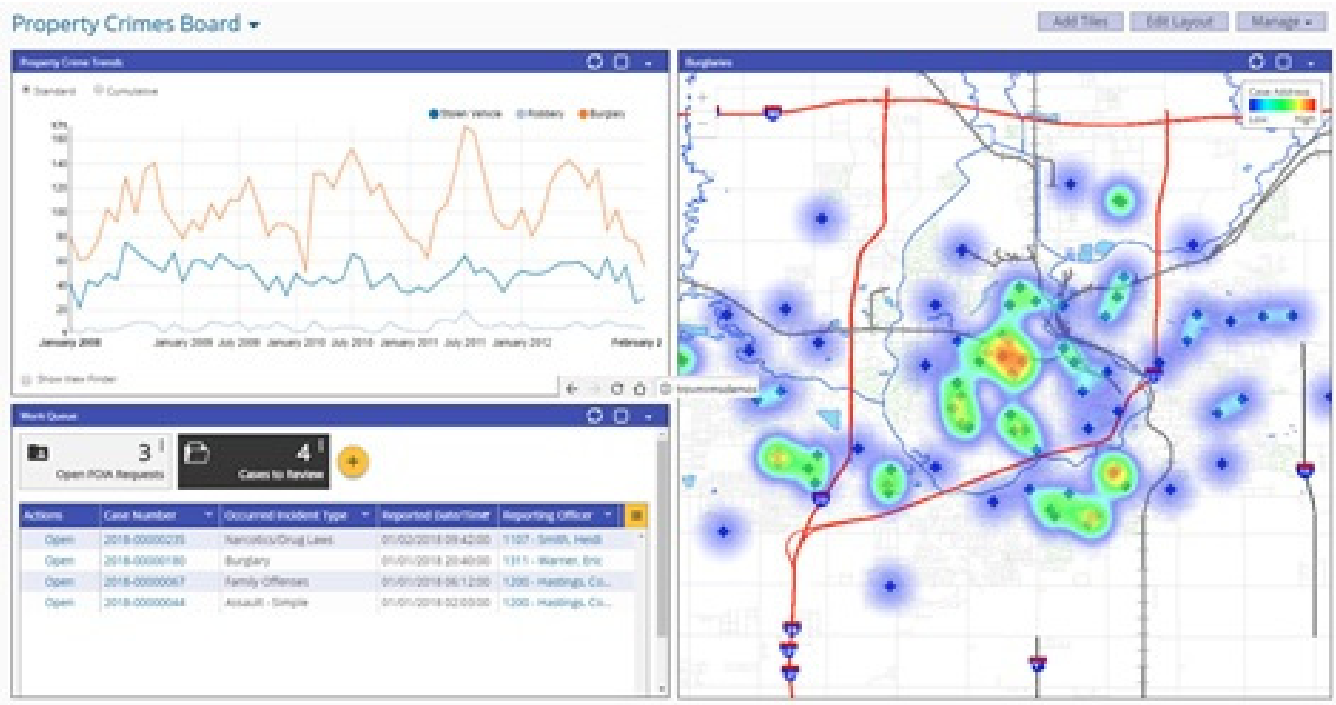
Mobile Fleet Status: Top Grid-User and last login. Bottom Grid-Machine and last user.

New World Enforcement Records

Tyler's New World Law Enforcement Records gives law enforcement agencies of every size and level of complexity cutting-edge functionality as well as the efficiency, reliability, flexibility and ease of use needed to help first responders, supervisors and command staff work proactively and make better decisions. The application combines one of the most comprehensive databases in the industry with a nimble search engine similar to that used by Facebook, Amazon and eBay. Departments can capture, process, analyze and act on information about cases, incidents, persons, buildings and businesses, vehicles, property, citations, crash reports and more, using agency-defined data fields that allow individual departments to track and follow-up on the issues most important to them. Built with a scalable architecture to manage the needs of small, individual departments right up through larger, more complex agencies and multi-jurisdictional consortiums, the application supports future expansion and provides robust security and authentication tools to ensure the integrity of each agency's information. Best of all, Law Enforcement Records is integrated with the rest of Tyler's New World public safety software suite, so information entered once into any module is shared throughout the system and immediately available to all users with proper permissions.

Manage data

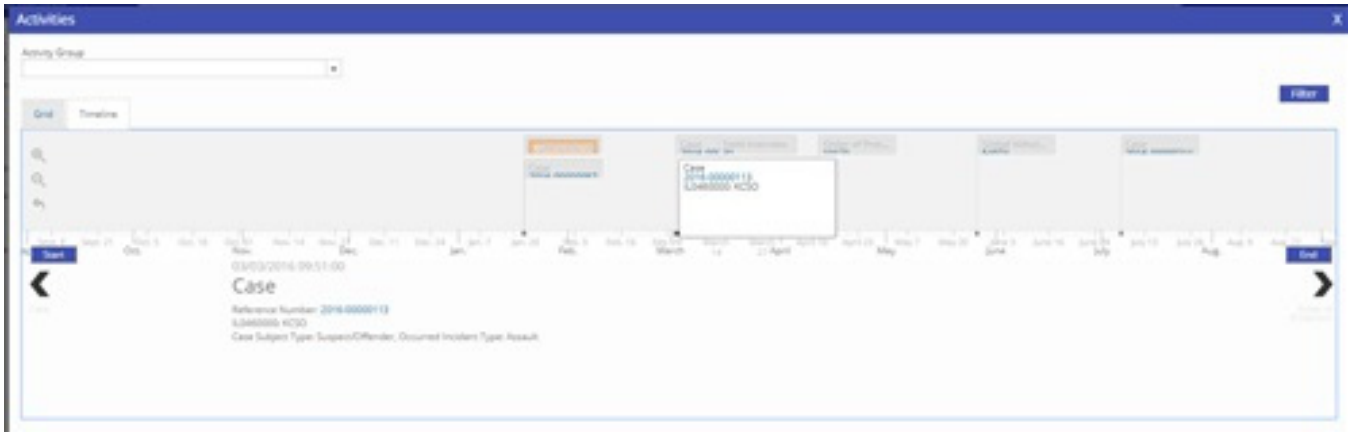
In today's data-driven world, Law Enforcement Records helps users make sense of all the information available to them. Individual home pages and dashboards can be tailored to display pertinent information in an actionable list, chart or map that can be easily reviewed and understood. A quick-search bar is always visible at the top of the page and will return search results in intuitive categories that can be filtered or refined. Searches can also be saved and reused.



Dashboards provide pertinent information.

Maintain awareness

The browser-based application is designed to speed information searches, minimize data entry and improve accuracy. Users can monitor their work via personal dashboards and receive automatic notifications when information or statuses change. Features such as the subject history and activity timeline aid in tracking changes over time.



Activity timeline visually shows developments over time.

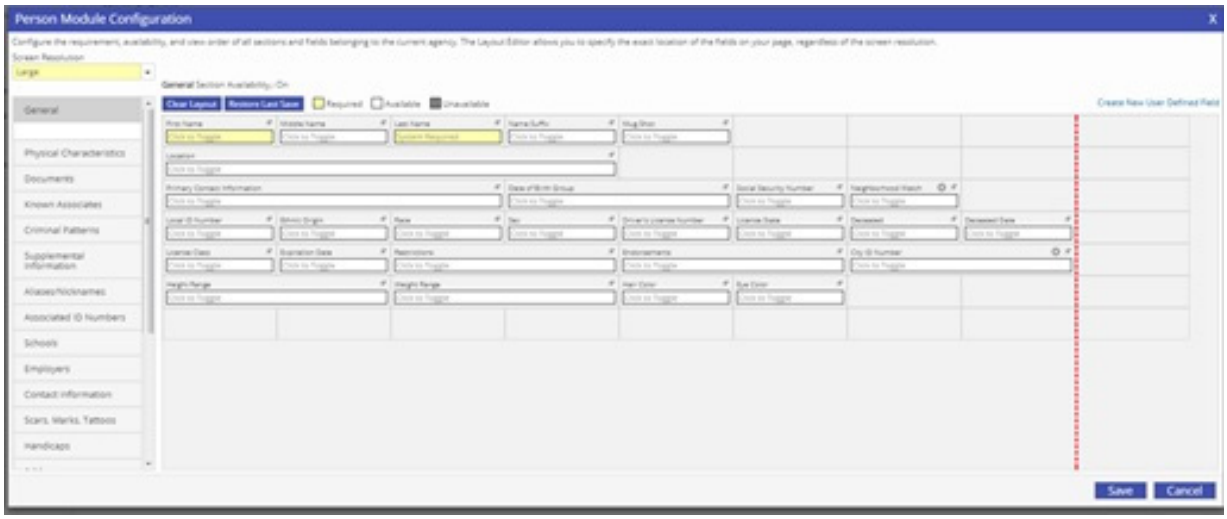
Automatic notifications and alerts deliver critical information on important status changes and events, and configurable dashboards provide a quick view of crime, operational metrics and other key data points. Searches can be scheduled to run regularly and configured to send user notifications when there is a hit.

Reliable output

Robust auditing and logging capabilities enable a comprehensive view into who changed what information and when, right down to the field level. Record locking ensures that only one person at a time changes information, but can also allow people to work together to simultaneously edit the same case, incident or other record. The activity timeline and subject history provide at-a-glance overviews of record changes with a quick synopsis of a record's appearance at previous points in time. And when new records are created, duplicate record checks automatically bring up similar existing records, ensuring data accuracy and preventing duplication of effort. Law Enforcement Records also embeds a full document management system to provide the tracking and versioning of all associated documents.

Agency tailoring

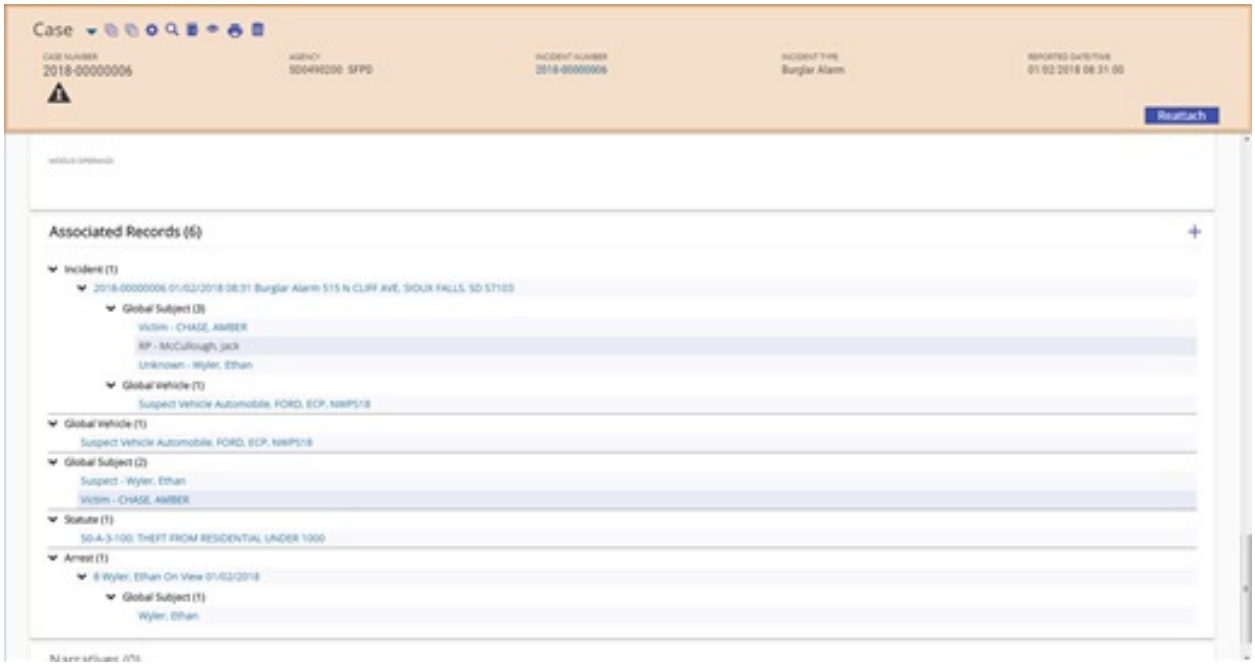
Each agency's needs are defined by its own policies, procedures and staff. Law Enforcement Records has native flexibility to enable administrators to show and hide particular fields, directing user attention to agency-defined priorities; reorder form sections to locate the most vital fields at the top; easily add help text for any field; and use a drag-and-drop screen editor to add custom fields that are searchable and available immediately for use in reports.



Fields can be shown, hidden and rearranged.

Intelligence-driven decisions

Interactive maps with hotspots, real-time analytics and trend charts enable users to quickly view all information related to a case, person or other record, and suite-wide integration enables sharing of information across departments and job functions.



Quickly view all related information.

Latest technologies now … and moving forward

Law Enforcement Records leverages today's latest technologies and positions law enforcement agencies to benefit from even newer advances for years to come. With cross-platform, multi-device support, the application can be run from a PC, Mac, desktop, laptop or tablet. Built-in

scalability enables agencies to easily add neighboring departments to the system for enhanced information-sharing. And Tyler's Evergreen approach ensures that investments in New World software are protected under an ongoing maintenance agreement that continues to keep the underlying technologies of the system current.

With Law Enforcement Records, command staff and supervisors have the means to better understand department operations, resource needs and the impact of their programs and initiatives. Whether a user needs to quickly pull information for a council or committee meeting, monitor area crime or see the progress on case workloads, Law Enforcement Records provides tools that enable resource management and results assessment. Dashboards provide a quick view of the relevant information, saved searches can be easily re-run to provide an up-to-date status and automatic alerts can provide notification regarding new or changing information. Agencies can use a dashboard to track operational metrics for improvement initiatives to keep everyone informed of progress and success. With both the big picture view and the ability to drill into all related information, command staff and supervisors are armed with the intelligence they need to improve operations.

Base Modules

Arrests

Processed arrests are separated into "adult" and "juvenile" categories and remain separate. An additional level of security is required for a user to access juvenile information. Comprehensive data is saved on arrests, the person(s) involved and court disposition information.

- Updates case arrest dispositions
- Automatically includes all arrests in IBR processing
- Supports multiple charges per entry per individual
- Provides full inquiry and reporting capabilities

Businesses

A global subject can be a person or a business/place. Based on what is entered, the application automatically displays the business/place or subject window. This module maintains business and place information as part of a global suite-wide file. Contacts, business registry, hazmat and other information can be updated at any time and new entries and/or deletions can be made easily. One-click access to Activity will display a summary of every record associated with this business or place.

- Tracks structure size and content of every business within the system, along with key contacts
- Supports document processing for any file type including images, Microsoft-Office documents and more
- Interfaces with the optional Alarms module, which automates the process for alarm calls for service
- Provides inquiry by business name, district, zone, class and sub-class or registry numbers

Case Processing

The Case Processing module captures all relevant information on cases. To reduce redundant data entry, incident information is imported, including all suspects, victims, witnesses and property attached to a case. An additional level of security is required to access juvenile information.

- Prior arrests may be directly accessed when entering or changing subject information
- Management of case specifics such as dates and times, crime codes, associated cases, officer assignments, dispositions, logistical data, comprehensive personal profiles and more
- Inquiry by date and time, assigned officer, subject name, crime code and case number
- Detailed case assignment and tracking functions
- Includes subject narrative and witness birth date, race and sex in the “Case Report”

Citations

All aspects of ticket and citation processing and record keeping, including ticket book distribution, statistical information separated by department and officers and ticket deletion or status changes, are maintained in this module.

- Citations produces a complete history of each ticket issued and is referenced to both the global subject and global vehicle
- Works with most third-party e-ticketing systems
- Inquiries can be run using name, license plate, driver’s license, vehicle identification number (VIN), officer and ticket numbers
- Multiple violations may be entered under a single ticket number
- Provides statistical reporting on tickets and citations
- Enables quick entry of ticket/citation dispositions

Geo-File Verification

All locations entered into Law Enforcement Records are automatically verified against the Esri geodatabase. The geo-verification process automatically adds/updates the global location table to include the location coordinates. Addresses known to be outside the jurisdiction can be entered using the “override” option.

Impounded Vehicles

The Impounded Vehicle Processing module tracks the details of an impounded vehicle, such as date and location of impound, the towing service and impounding officers, as well as general vehicle information accessed from Vehicle Processing. Tabs on the screen contain additional information, including owner information and associated numbers such as case or arrest numbers.

Incidents

The Incident Processing module captures any agency event. The New World CAD system will automatically create Incidents for each agency; all pertinent information such as units, personnel and narrative are part of the Incident record. Incidents can also be entered in Law Enforcement Records (front desk, walk-ins, and expeditor).

- Tracks all incident information including type of event
- Imports certain information for users to eliminate redundant data entry

- Allows users to engage in cross-jurisdictional reporting in multi-jurisdictional environments when desired
- Tracks and records all responding personnel and units to calls
- Provides narrative and full document processing

Investigations

The Investigations module is a valuable tool for investigative personnel and officers, providing a number of easy-to-use search features that can help identify subjects and possible associates with minimal information. The more thorough the search criteria, the higher chance of locating a particular subject. Quick searches can be performed to locate information on the identity of stolen property. All searches are cross-jurisdictional.

- Provides an inquiry of all aliases, helping to facilitate quick jacket associations
- Provides for Global Name Inquiry of any jacket by name, aliases, address, date of birth, sex/race, height/weight, driver's license, social security number or jacket number
- Provides the ability to search for subjects using numerous "wild-card" combinations and phone number

Personnel

This module tracks all public safety personnel and their equipment.

- Users can enter names, addresses, physical characteristics, blood types, emergency contacts and employee data
- Medical, Emergency Contacts, Contact Numbers, Rank and Assignment can all be tracked
- ID number can be reused if necessary
- My Personnel feature allows users to update portions of their own personnel record (contact numbers, etc.)

Persons

The Master Jacket File links the entire New World public safety software suite and is integrated to every module and interface offered. The Persons module maintains information on people and businesses and stores this data in a Master Jacket File. These files contain information on physical appearance, current and past addresses, identification numbers, phone numbers, aliases and known associates.

- Users can create adult, juvenile and business jackets
- Global subjects are by agency but support "Virtual Jacket" processing, which can display one subject when multiple agencies have matching subjects
- System can automatically match subjects across agencies to display all activity regardless of origination
- Global subject associations are created automatically from Law Enforcement Records entry
- Includes "watch list" processing with email notification

Property and Evidence

All property may be tracked through this module, which differentiates between stolen, recovered and impounded property, as well as property that is held as evidence. Users can list where each

piece of property was obtained. The module automatically links all property items to corresponding cases and subjects to eliminate re-entering data. Property is included in Persons, Case Processing and Incidents files when it is entered as registered or pawned.

- Provides a chain of custody and property transaction function
- Reports all stolen and recovered property to IBR
- Supports bar code labeling and automatically targets property disposal dates
- Conduct Global Property Inventory
- Quick Entry screen for officer use (drop lockers)
- Email Notifications for property-related tasks
- Quick review website of property items for officers
- Prints receipts and can generate owner-notification letter
- Optional handheld functionality

Integrated Property and Property Room Processing

In Law Enforcement Records and Field-Based Reporting, property and evidence items are collected and processed into a physical location with established process and security controls. This is the point of entry into the system where descriptors and tracking identifiers (e.g., date/time received, contributing and receiving officers and location) are recorded for both inventory control and chain-of-custody purposes. The property can be checked against both internal property items and State/NCIC for matches. Law Enforcement Records will link property/evidence information with the case, subjects, and offenses. (Property can also be linked to Incidents; found property items may not require a full case report.)

Property in New World includes stolen, recovered, evidence, found and any other types captured. Officers may or may not have physical custody of the property item depending on the type of property. Physical property (evidence, recovered, safekeeping) can be entered into Field-Based Reporting or (more commonly) the physical property items are transported to agency drop lockers and the officer enters basic information into Property Quick Entry.

Property Quick Entry defaults the officer ID and date/time, and saves entered values for quick entry of the basic item information. The property/evidence can then be placed in a drop locker with a signed receipt attached. Agencies can also capture signatures electronically. By ensuring that the case number is part of the item entry, the property/evidence record will “hook up” to the officer’s report when processed. The property room officer has a similar quick entry check-in process that allows for more detail and can create the bar code labels as needed.

Property Room processing also includes notification letters that can be generated from the application. The property room officer can click one button to produce a professional letter informing the property owner of the release and any release process.

Wants and Warrants

The Wants and Warrants module allows authorized Law Enforcement Records users to enter and maintain information associated with the issuance of warrants. Warrant records typically include the name and address (or other location) of the wanted global subject, as well as related vehicle information and law enforcement charges. The Wants and Warrants module is fully integrated with the suite of products to alert officers of pending or outstanding warrants.

- Tracks all new wants and warrants and maintains records on their current status
- Tracks all subjects associated with the warrant including their role
- All activity, officer assignments and associated documents can be recorded with the warrant
- Warrant activity from officers using mobile (e.g., attempts to serve) can be used to update the warrant using the My Workday feature
- The On-line Wants and Warrants to NCIC interface allows authorized end users to submit inquiries to their state's NCIC System directly from the warrant record in New World Law Enforcement Records and/or New World Corrections Management; the NCIC form is automatically populated with data stored in the warrant record so that the end user does not need to manually key in the information
- Interfaces with Microsoft Word to allow users to preview and print custom warrant letters directly from the Warrant Entry and Warrant search windows
- Lists and tracks all desired want/warrant statistics
- Ability to provide comprehensive inquiry of wants and warrants by date, warrant category, related case number, name and warrant number
- Wants and warrants display as alerts across the New World suite based on the subject, vehicle or location

Reporting

Compliance Reporting (IBR/Clery and Crash)

The IBR/Clery state compliance module provides statistical information on offenses and adult and juvenile arrests. The information is automatically generated each month in accordance with state standards. All statistics are gathered easily and reports are printed with a simple keystroke.

- Pulls data from appropriate modules and applies edit rules
- All files, whether finalized or not, may be automatically or manually selected for reporting files during a given month, depending on agency preferences, allowing users to build multiple files an unlimited number of times
- Produces the appropriate electronic file for submission to the state

The Crash Reports module tracks and maintains all information about an accident: drivers, passengers, pedestrians, witnesses, vehicles and environmental and contributing factors. Crash report numbers can tie to an Incident number, which can also be used as search criteria.

Prints State Accident Form – If a hard-copy printout is needed, the Crash Reports module will print the familiar state form.

Detailed Reports – Numerous traffic and study reports can be created. The system complies with all state-mandated accident reports that can be easily entered into the system and printed on demand.

General Reporting

New World offers four "layers" of reporting and analytics in the New World solution – Standard Reports, Dynamic Reporting, Decision Support Software and Socrata Public Safety Analytics. Each of these "layers" is designed for "self-service," so users can access and export information without requiring technical staff.

Standard Reporting

The New World suite provides users with a number of standard, pre-formatted reports. Standard reports use selection criteria to create the output and support both print and print-preview functions using standard Windows technology (Microsoft report viewer). The report viewer supports email, PDF and exporting directly to Microsoft Excel. Agencies can customize standard reports by adding their logo or by using the application report manager to make more extensive modifications. Report tracking can be configured to require users to enter information about the origination and dissemination, as well as maintain an audit log of printed report activity.

Dynamic Reporting

This wizard-based application allows authorized users to create ad hoc reports, data exports and pin maps. The wizard walks users through the process of creating a query and uses plain language across the module. Users do not need to know the database or use complex third-party software.

Dynamic Reporting allows users to save their queries and to set up recurring data exports or reports that run on a scheduled basis. In addition, the mapping components allow users to leverage the integrated mapping as selection criteria.

With its easy-to-use controls, Dynamic Reporting enables users to select data from a map by "drawing" a boundary around a specific area or by simply selecting existing map layer polygons. Users can also create pin maps, heat maps and density maps from any module in the system. Pin maps support mouse-over display of the details and key modules support double-click to open the underlying record in the New World software.

Dynamic Reporting happens against real-time production data with built-in throttles that prevent a user from running any query or extract that would impact operations. It is a tool designed for the average user and enables an environment of self-service that frees analysts and IT personnel for other tasks.

Decision Support Software (DSS)

DSS is a module designed for management, crime analysts and "power users" who need more information across multiple dimensions; it supports analytical and "what if" scenarios. The data mart and data cubes are populated on a configurable schedule from the production system using SQL Server technology and the module is architected to complete this data export and transformation without impacting the production system. This separate data mart supports detailed analytics using the embedded Microsoft Excel functions or any industry-standard third-party tool. The data from production undergoes an export and transform process to "flatten" out the transactional data and calculate key values. This makes it much easier for power users, crime analysts, management and administrators to look at the public safety data across several axes.

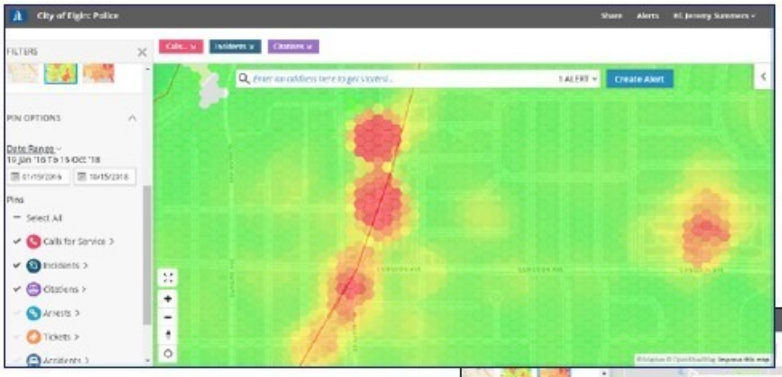
DSS is a powerful tool that also supports Esri GIS functions for mapping. With the optional dashboards, DSS provides management with the "at a glance" information needed to make staffing and strategic decisions.

Dashboards provide information from the data mart in a graphical browser format using "gadgets" that can be easily customized. Browser access to dashboards makes it easy to monitor trends, metrics and other analytics.

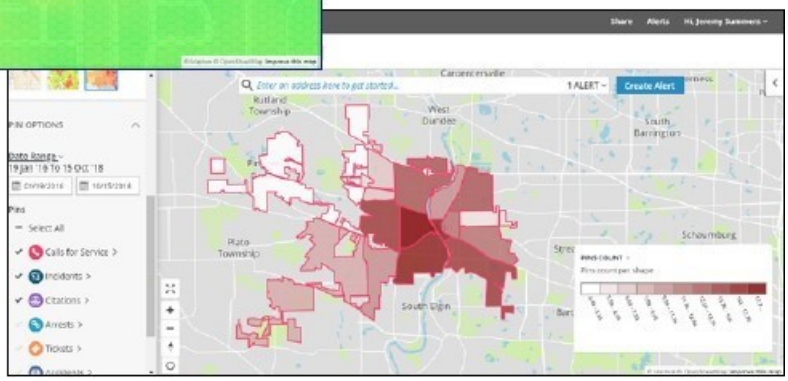
Socrata Public Safety Analytics

Tyler also counts Socrata Public Safety Analytics among our product offerings. This map-centric tool provides a comprehensive picture of crime, accidents, tickets, law enforcement and fire incidents and CFS by displaying data in an easy-to-use interface for quick trend analysis. Used by public safety personnel from patrol officers to crime analysts to command staff, Public Safety Analytics pulls data quickly and efficiently to create a variety of maps that can be broken down by beats, districts, quadrants or regions. Automatic data breakdowns highlight information by time of day, day of week and numerous other filters to indicate where incidents and trends are occurring. Users can save the view levels, filters and configurations used, allowing them to jump back into settings with the click of a button. Data is displayed through pin mapping, honeycomb heat mapping and choropleth mapping. Each of these map views provides users with the ability to analyze crime and justify resource allocations.

- View New World crime, accidents, tickets, incidents and CFS geospatially
- Subscribe to receive alerts
- Sort by crime or incident type, location, time, day, date and occurrence for trend analysis
- Create honeycomb heat maps, pin maps and choropleth maps for enhanced location and time frame accuracy



In a honeycomb heat map, hot spots are shown in various colors and within hexagonal shapes, allowing users to use the zoom level of the map to see the exact area of an influx of activity down to the street level.

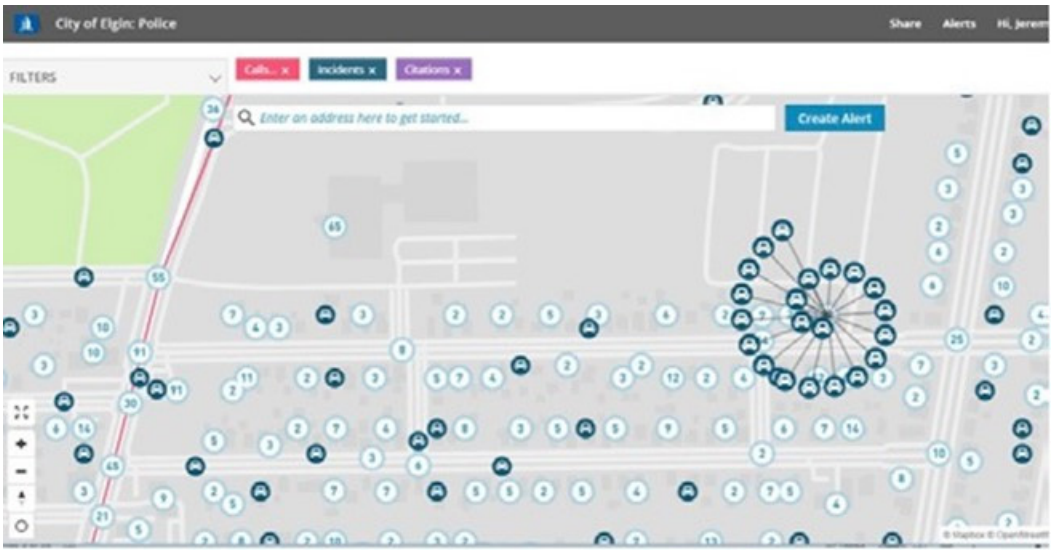


Choropleth mapping is used to determine the density of occurrences within a geospatial boundary such as beats, quadrants, or jurisdictions.

Socrata Citizen Connect for Public Safety

Socrata Citizen Connect is a map-centric portal that allows the public to view where law enforcement and fire incidents occur, with details such as the type of crime happening, CFS placed over any period and the location of violations or fire incidents. This information includes cases, accidents and tickets that occur or are issued in a specific area. By mining the available New World public safety data, the County can offer the public a geospatial view of local activity in the form of alerts or notifications.

Socrata Citizen Connect allows individuals to sign up for the alerts they desire, enabling the County to provide government transparency in a format that is easy for citizens to consume. It also reduces the amount of time that staff needs to spend answering questions. By empowering citizens to gather details of public records quickly and easily, from anywhere at any time, Socrata Citizen Connect can help improve departmental efficiency.



Pin mapping enables users to view detailed information for each individual occurrence.

With Socrata Citizen Connect for public safety, the County can:

- Take a proactive approach to transparent government to get ahead of citizen expectations and control costs
- Build trust and extend citizen engagement with highly-consumable and user-friendly maps and information
- Reduce citizen request costs by allowing users to drop pins or specific geographical areas of concern and subscribe to alerts
- Integrate with New World public safety effortlessly, providing regular updates and feeds with the content that matters most

Additional Modules

Alarms

The Alarms module allows users to enter and maintain alarm permits, transactions, and invoices related to residential and business alarm systems. It also allows agencies to indicate whether or not a Call for Service (CFS) is automatically created in New World Computer Aided Dispatch (CAD) for the individual alarm events and alarm zones associated with a specific alarm permit.

- Tracks payments made for yearly alarm permit fees and invoiced transactions
- Allows for tracking of unmatched alarms when there is no registered alarm permit with the same geo-information for an alarm-related CFS
- Alarm Invoices can be created, regenerated, and/or rolled back if changes need to be made
- Includes a function to print Alarm Permit Notices for permits that are expiring

Animal Licensing

The Animal Licensing module consists of two main components. The first consists of the ability to track information about animals that are associated with other Law Enforcement Records modules (e.g., Incidents, Citations, Property and Evidence). It allows you to record such information as the animal's name, address, owner, veterinarian, vaccinations, quarantines and more. The second component of the module allows users to enter and maintain animal and kennel licensing information, including, but not limited to, the name of the license and licenser, license issued and expiration dates, and any associated fees and supporting documents.

Bicycle Registration

This module serves as a complete relational database to help communities identify stolen or lost bicycles. Agencies are able to refer to their files to locate a given bicycle serial number (when available) if misplaced by the owner.

Bookings

The New World Bookings module stores current and historical information on the incarceration of all jailed individuals. It serves as a database that links an inmate with his or her personal information, such as criminal record, addresses, phone numbers, vehicles and more. Officers can also check State/NCIC databases for prior records and outstanding wants and warrants.

Bookings also stores fingerprint data, manages inmate activity, tracks bond and court information and utilizes an agency-defined questionnaire to establish whether an inmate may be at risk for suicide, or harm to or from other prisoners. A number of reports can be generated, detailing booking activity, booking history and jail population. (New World CMS replaces this module.)

Briefing Notes

The Briefing Notes module gives law enforcement officials the ability to provide field officers with a daily summary report of updates, useful information and alerts. This report serves as a single point of contact to maintain communication between administrators and officers. Many agencies distribute this report, which can be updated as often as desired, during roll call shifts.

Remote officers can obtain information while in the field by accessing Briefing Notes through a web browser on a password-protected web page.

A Note Pad feature allows administrators to enter narrative in free-form text on any subject, such as a listing of outside security jobs, charity work or current court hours. Users can enter information under various headings, including but not limited to "Wanted/Missing Persons," "Outside Alerts" (BOLOs), "Stolen Vehicles" and "Personal/Property Crimes."

Registered Offenders

This module allows users to enter and maintain information about habitual offenders and paroles. The information that is tracked includes Registration Information, status information, parole officer, activities, offense information, terms and conditions and more. A career criminal record generates global subject activity, a person alert and a location alert for the home address that is displayed across the New World suite. When used in combination with the Event Manager module, authorized personnel can receive notifications when a career criminal's global subject

record is changed, a scheduled home visit is due, a homeless check-in is due and when overdue or upcoming registrations arise.

Case Management

The Case Management module maintains a database of current cases and their status. It can be used as a supervisory tool that includes numerous breakdown statistical analysis reports, bond and court information, solvability factor reports and case history data.

Case Management tracks assignment and activity associated with the case. From this single module, investigators can quickly see their case load and update information. The application includes notifications via email for assignments and upcoming/overdue tasks. A number of standard reports assist both officers and supervisors (Cleared Cases, Case Load Summary, Case History, Case Load by Solvability Factors, etc.) with case load management.

Demographic Profiling

This module allows users to enter and maintain records related to Demographic Profiling records. Screens are designed specific to each state by the agency, making updates required by the state easy. The search feature includes the ability to export the information directly to Excel to facilitate statistical analysis. This module is designed to work with New World Mobile to automatically drive any required demographic profile information as part of normal patrol activities.

Equipment and Inventory

Allows authorized users to enter and maintain general equipment, as well as equipment specific to law enforcement, which includes guns. The information that is tracked includes equipment type, sub-type, equipment descriptors, purchase information, first in-service date, in/out service, scheduled replacement date, status information and more. Additionally, the module allows activity to be entered and scheduled for each piece of equipment.

- Saves time by tracking all critical equipment items related to fire management
- Tracks scheduled inspections and alerts the user when it is time to reschedule testing
- Tracks scheduled and unscheduled equipment repairs
- Equipment can be linked to the Inventory module if needed

Also allows authorized users to enter and maintain all of the inventory items that an agency uses on a daily basis. System administrators can set up a category-based system for the inventory items and track the manufacturers of stocked items. Inventory Clerks are able to search for items, enter them into the system, restock inventory when reorder points are hit and move inventory within the system to reflect physical movements. Inventory items can be assigned to specific storage locations, units or individual personnel.

Field Interviews

Field Interviews is an intelligence-gathering mechanism designed to assist law enforcement agencies with individual cases or incidents. The module functions as an online database of information that is crucial to criminal investigations.

The Field Interviews application can also be used as "contact cards." Any field encounter can be quickly captured and stored. All contacts at a given "problem" location can be tracked and known associates can be grouped or linked together.

- Agencies can select specific features
- Tracks contacts with subject or vehicle
- Can be used for trespass warnings and will display when querying subject from Law Enforcement Records or Mobile
- Can be used to investigate leads on various cases

Gangs

The Gangs module allows users to enter and maintain records on gangs and is designed for gang units or agencies with gang-related intelligence (information) and gang informant issues. This module allows agencies to track detailed information on gangs including gang location, modes of operation, dress, colors, weapons, vehicles, activities and more. Users can search gang records based on the information in the system such as members at or near their jurisdiction. Gang intelligence can be added and tracked to gangs and members. Informants can be registered and their information can be evaluated and rated while protecting their identity.

- Tracks Name, Associated Gang and Gang Member Locations, Gang Colors, MOs and more
- Gang Members, Aliases, Street Names available to any user
- Gang Associations easily tracked
- Vehicles – identify gang vehicles and provide critical information to all officers
- Gang activity tied to gang and/or members
- Modus Operandi and weapons tracked
- Intelligence information easily searched

Hazardous Materials

The Hazardous Materials module is designed as an integrated Computer-Aided Management of Emergency Operations (CAMEO) database. It has a function that allows the system administrator to update the database as it is updated by the U.S. Environmental Protection Agency (EPA). Tracking hazardous materials on buildings and/or businesses allows CAD and Mobile users to pinpoint the specific location hazardous materials exist within a building, so that first responders have immediate access to the information before arriving on scene.

Narcotics

The Narcotics module allows users to enter and maintain records related to narcotics investigations, narcotics-related intelligence gathered, narcotics-related informants, and a narcotics fund ledger used to track money used for drug buys and informant payoffs required as part of a sting or investigation. The module gives jurisdictions a method of efficiently tracking narcotics offenders and related contacts; it can be utilized to support departmental drug enforcement activities and serve as a support mechanism for undercover surveillance by tracking individuals, businesses, equipment, private residences and more.

Orders of Protection

The Orders of Protection module allows you to enter and maintain orders of protection issued by a judge or court to protect a complainant from alleged defendants or aggressors. This module

allows you to enter detailed information about the order that includes associated subjects, locations, cases, terms of the order, activity, NCIC, remedies, cancellation information and more.

- Active Orders will display as an alert/hazard across the New World suite
- Automatically cancels expired orders of protection, with an automated activity record defining when and why the order was canceled
- Can be set up to automatically update the order status information when specific activity records are added
- Can be used in conjunction with the On-line Orders of Protection module to automatically send the Order of Protection information to NCIC

Pawn Shops

The Pawn Shops module tracks all pawn shop transactions along with owner and customer information for an agency-defined area or community. These features allow agencies to accurately track pawn shop transactions while simultaneously checking the stolen property data listed in Law Enforcement Records, thereby improving the chances of identifying and recovering stolen goods. All pawn shops are listed in the Law Enforcement Records Businesses jacket file.

- Tracks all items pawned for each pawn transaction
- The on-line Pawn Shop to NCIC interface allows authorized end-users to submit inquiries to their state's NCIC System directly from the Pawned item record
- This module compares pawned items to reported stolen property (at entry or via report)
- The Pawn module includes and import feature where pawn shops can submit electronic files which can then be imported into the system
- Multiple canned reports are available for analyzing pawned information

Permits

The Permits module tracks the details of an issued permit, including the permit holder, permit type, permit status and important dates, such as those for permit issue and expiration. A robust search interface allows users to quickly locate existing gun permits.

The gun registration processing feature tracks the details of an issued registration, including the registration holder, registration type, registration status and important dates, such as those for registration issue and expiration. A robust search interface allows users to quickly locate existing gun registrations.

Some law enforcement agencies are responsible for entering and maintaining general permits that are needed or required to operate within the agency's jurisdiction. The Permits module allows the agency to do this quickly and efficiently. Common examples of the permits that can be tracked include permits for pets and other animals, bicycles, parking, taxi cab drivers, taxi cab companies and massage parlors. The information captured in the Permits module includes permit type, application date, permit fees, permit applicant, permit location, activity, status information and more. Active permits will display as an alert/hazard across the New World suite.

Photo Lineups/Mug Shots

This module and the proposed camera kit can be used for taking mug shots that can be configured as a traditional front/profile view or according to the National Institute of Standards and

Technology (NIST) standard format. With lineup processing, users can define their search criteria and select the matching photos to display in a photo lineup. Subject photos are available across all New World applications whether captured as part of Law Enforcement Records, Corrections Management or any other New World application.

Property Room Bar Coding

This module allows Law Enforcement Records users to perform Property Room tasks such as checking inventory, updating property locations, updating property dispositions and updating chain of custody information using Pocket PCs with Bar Code Scanning.

For example, using the wireless device, the user would log in to establish an interactive connection with the New World system. The user would then access the Wireless Property Room main menu and select the Inventory option to check inventory. If the user is checking inventory in Storage Room A, they would scan the bar code for Storage Room A. They would then scan the bar codes of all property items currently stored at that location. As items are scanned, they are displayed in the Inventory window on the Pocket PC. The Inventory program compares the scanned items to information previously entered into the New World database, then displays a checkmark next to items that are supposed to be located in the current location and an X next to those that are supposed to be stored in a different location. For the latter, the program also indicates the specific storage location in which the misplaced items should be stored. Checking items in and out of the property room or disposing of them can also be done from the handheld device.

Scheduling

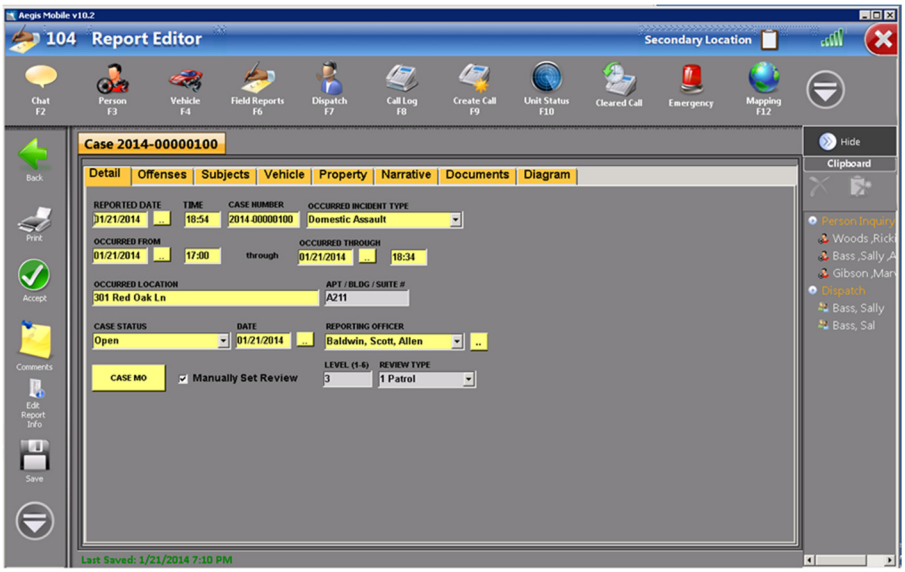
The Scheduling module enables users to create and view scheduled activities based on Station, Shift and/or Personnel. The module also generates a Roll Call for a particular Shift. Authorized users can record the attendance of personnel subjects assigned to a specified shift for a specific date, as well as any reason for a subject's absence.

Vehicle Tracking

The Vehicle module allows users to enter and maintain information pertaining to all of the vehicles in use by the law enforcement agency. The information that is tracked includes vehicle type, vehicle descriptors (make, model, VIN, etc.), purchase information, first in-service date, in/out service, scheduled replacement date, status information and more. Specific information about the vehicle size, engine, electrical components, tanks and tires can also be tracked. The module uses agency-defined activity codes to keep track of scheduled and completed maintenance, with the ability to have completed maintenance automatically schedule the next maintenance event based on configured intervals.

New World Field-Based Reporting

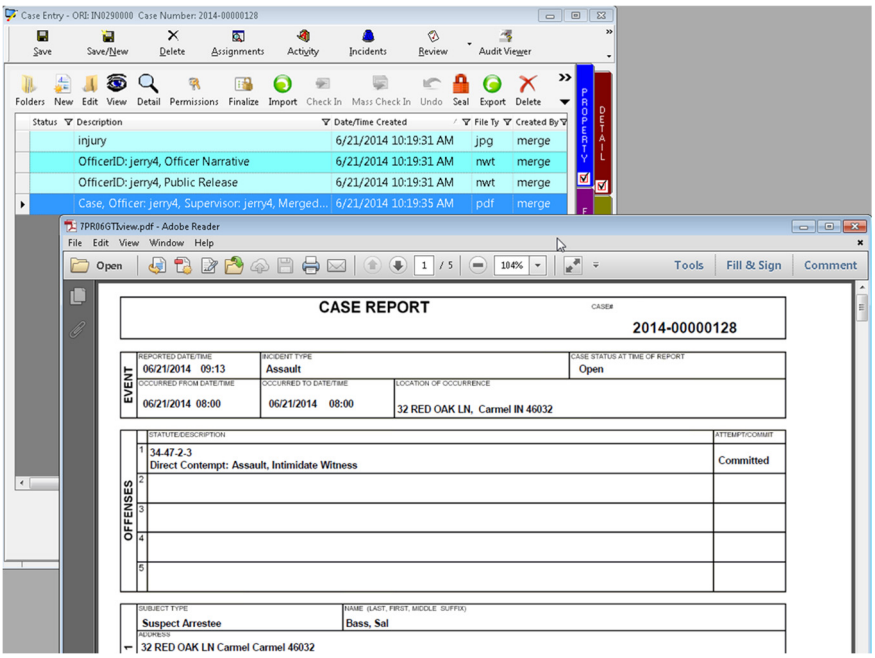
New World Field-Based Reporting (FBR) uses configurable forms that display as agency report types. All FBR implementations are started with an existing set of forms for Incidents, Cases, Arrests, Field Investigations and Impounds. (Accident Reports are also available but follow the state form.)



Field Report Entry.

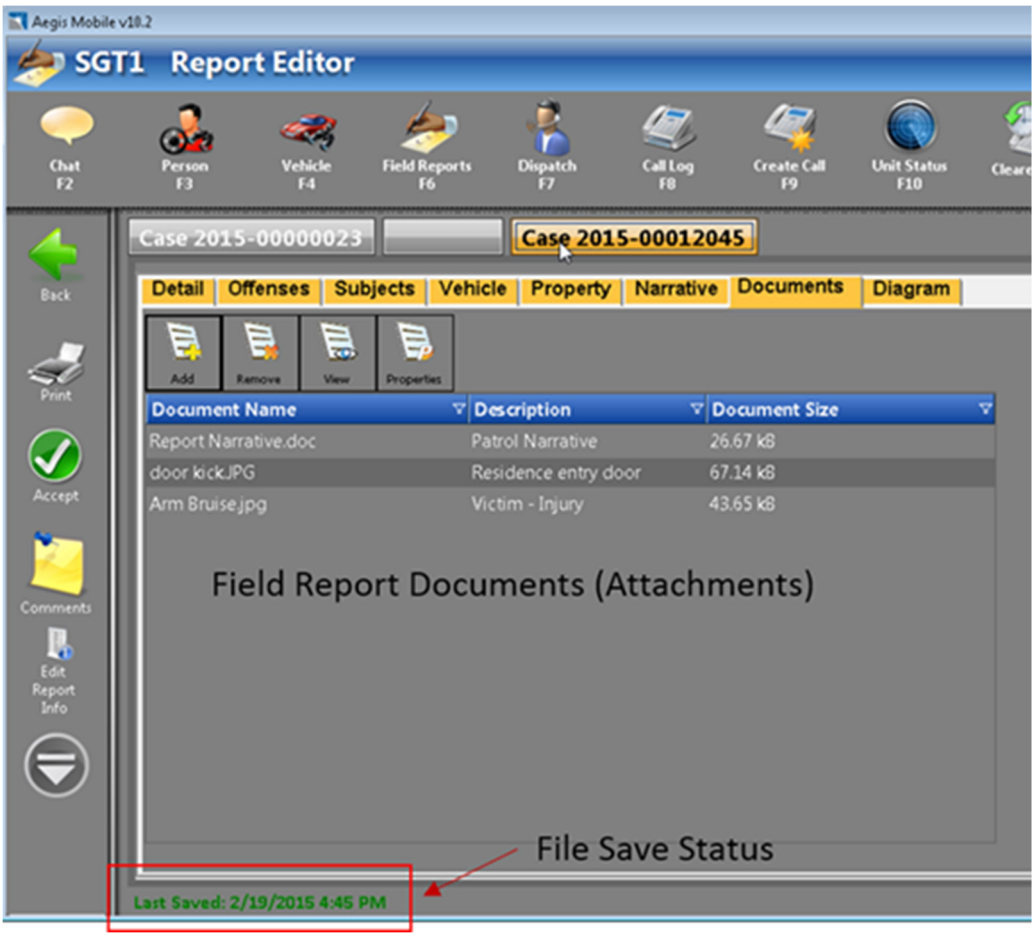
Any field report created in the New World Form Designer must map or merge into one of these modules. For example, an agency could have a case report, supplement and use of force as field reports that merge into RMS Case processing.

FBR implementation allows for configuration of the report forms, logic and printed output. The printed output can be built to mimic existing forms; when a field report is merged into RMS, the printed form design is attached to the RMS record as a PDF document that has a title including the reporting officer's name and ID number. If multiple officers write reports against the same case, all of the reports would be attached to that one event in RMS.



Viewing merged Field Report from RMS.

Some agencies may treat a report the same as evidence; having a PDF form of the report allows each officer to use the submitted report in court knowing that it is the original document of his or her actions at the scene. Anyone following up on the case can open it in RMS to see a single combined record or case packet comprising all integrated reports, along with all activity and history of the event.



Some agencies will operate with a case report and supplement. Other agencies will create a general case report form, a domestic violence form and multiple supplements that reflect the primary activity. A property supplement is a common field report type that allows for quick entry of multiple stolen property items when the citizen has had time to evaluate what is missing. Another common supplement type is a narrative supplement. With any of these field report types or supplements, the report form would reflect only the fields required to speed up entry.

FBR reduces time spent completing reports. Dispatch information starts the report. Officers query subjects and vehicles and can save the parsed responses (from State/NCIC or local RMS) to the Mobile clipboard to populate their reports forms as follows:

Export to Field Report

- Dispatch message
- Incidents

- Booking
- Booking wizard
- Case
- Warrant

Copy/Paste to Field Report

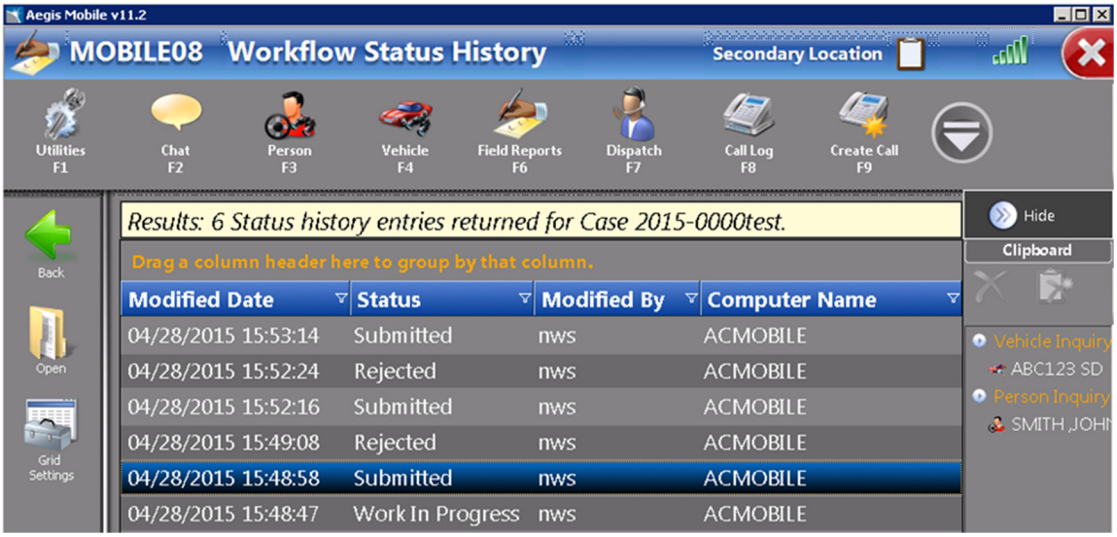
- Global subject
- Global vehicle
- NCIC parsing
- Roaming clipboard
- DL swipe/reader

Once a report is submitted, the mobile client displays report notifications for both officers and supervisors.

Field Reporting – Notification "Toast"

Supervisors can review and approve or reject reports with comments/notes anywhere that the Mobile client is installed. If the field report type is configured to not require approval, the officer's submission sends the report to the record's merge queue.

Submitted/approved field reports are routed to the merge queue, where personnel outside of a tactical environment can review and merge that information, update master indexes and apply a level of "quality assurance." Field reports and their status history can be queried at any time.



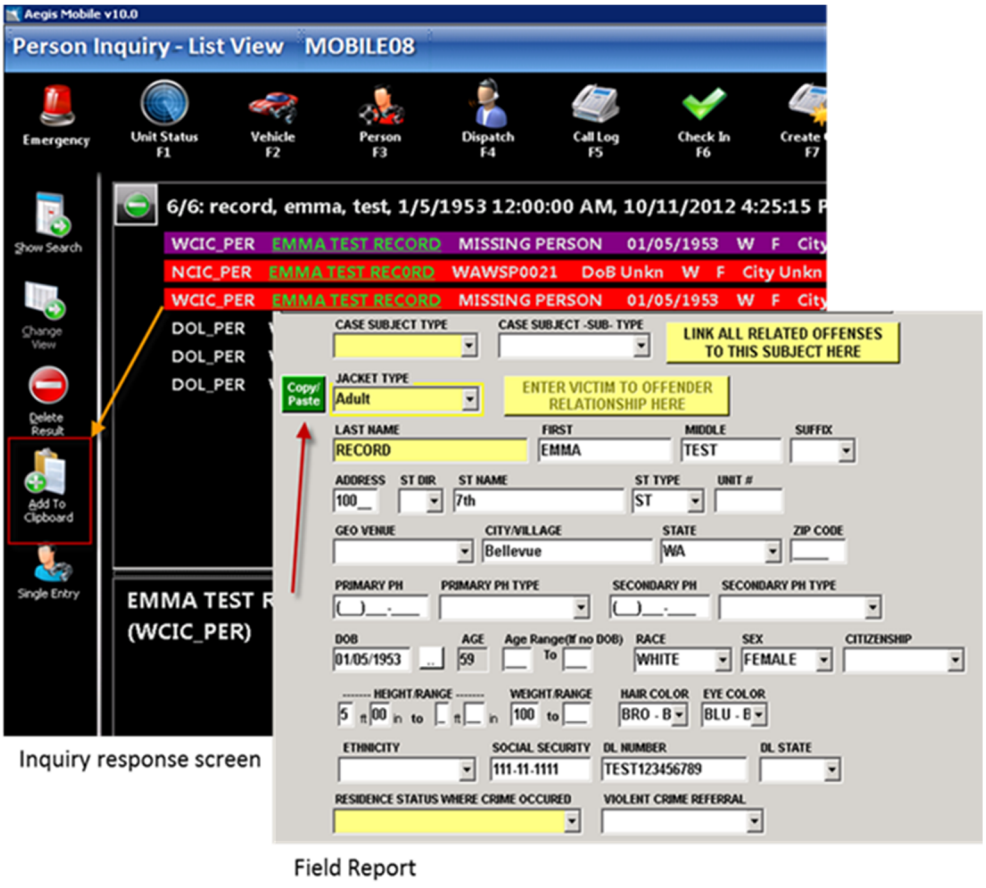
Field Report Status History.

Queried field reports can be used to initiate another report. The primary officer can start the report and "save" it once it contains sufficient information to share. (Reports are cached locally until saved to the Mobile server. Once the report is saved, it will continue to automatically save at the configured time interval.) Other officers can query this report and use it to initiate their supplemental reports. In short, FBR supports a number of configurable workflows:

Field-Based Reporting Workflows

- Dispatch > Case > Arrest > Booking Wizard
- Field report search on a case > Arrest
- Case inquiry > Arrest
- Cleared Call > Case Supplement
- Booking>Arrest > Case
- Cleared Call > Accident > Case > Arrest
- Warrant Inquiry > Arrest

Some reports need expedited processing. New World FBR enables field reporting arrest information to be used immediately to initiate the intake/booking process. Officers can also use the booking information to complete the arrest report. Part of this feature leverages the integrated New World suite using CAD and Mobile to provide the Jail with a real-time status board so the Jail can manage staff resources better.



State/NCIC Response populating a field report.

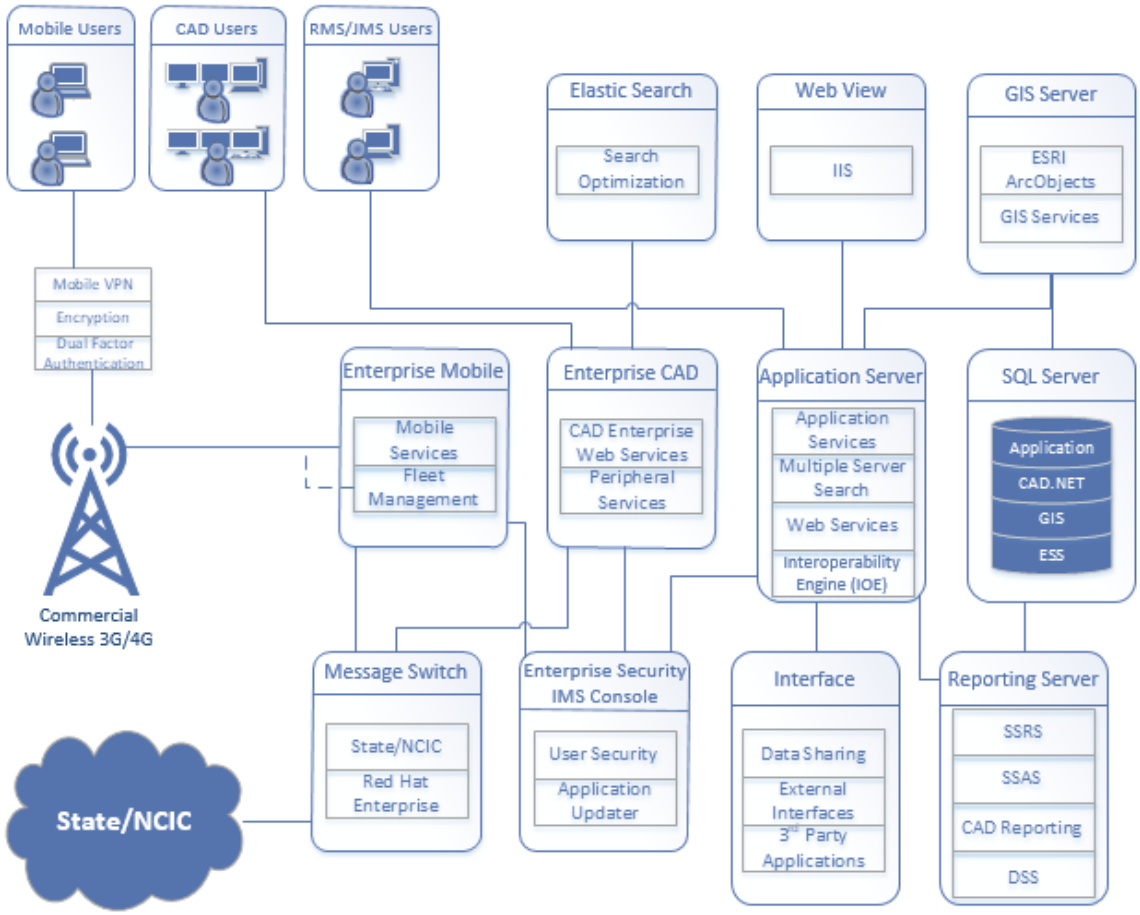
Field Investigations

Mobile Field Investigations are the typical starting point for capturing data that does not typically require a case report on contacts, interviews and investigations from the field. After the data is captured, it is sent to the RMS Field Interview module where data can be used to develop case information and provide necessary investigative output reports. Agencies can use the collected data to track contacts with a subject or vehicle, to manage trespass warnings and investigate leads on various cases. The module can also be used to manage subject associations, as well as gang and narcotic information.

2. Technical Architecture

System Architecture Overview

The proposed New World solution is architected as a traditional n-tier application suite using Microsoft technology. The New World applications include a client component and server-side services; users do not access the Microsoft SQL Server database directly. Management of application configuration and settings is done through the New World application.



This high-level logical view of Tyler's New World solution shows its major components.

New World System Architecture Components

System components are modular and can be deployed on separate virtual servers as needed. Enterprise Security (user management and authentication) and GIS services (ArcGIS Server) are examples of system components that are often deployed on a separate virtual server. A summary of the high-level components of the New World solution is listed below.

Microsoft SQL Server: Users do not connect to the database; only the application services connect to Microsoft SQL Server. We recommend that agencies harden their SQL Server installation once deployed; the New World application services (server side) are the only

database connections required. All users access data through the application suite; this ensures that the application security is enforced and helps maintain compliance with FBI Criminal Justice Information Services (CJIS) security requirements.

Reporting Server: The reporting server hosts a SQL Server and license-based reporting tools and applications including Decision Support Software (DSS) and CAD Reporting. These are powerful search tools and can be resource-intensive. The Reporting server workload is isolated, and a local copy of SQL Server is installed to maximize performance of the New World solution. This server also hosts SQL Server Analytic Services (SSAS) and SQL Server Reporting Services (SSRS).

Enterprise CAD Server: This server hosts all CAD clients and manages CAD updates, CAD GIS services and all other CAD activity. The Enterprise CAD server and database are specific to CAD-only data; shared information comes from the New World Application Server. CAD clients can operate connected or in Offline Call Handling Mode (stand-alone client). If the network or server is unavailable for any reason, a dispatcher can continue limited operations (including geo-validation) using only the client workstation.

Application Server: The New World application server is the primary server for the New World client applications (Law Enforcement RMS, Fire RMS and Corrections). This server is also used by Enterprise CAD as part of the integrated suite to support hazards and alerts and provide access to RMS information. The New World server-side programs are architected as both Windows service programs and web services. The modular architecture of the Application server is scalable and designed for both performance and reliability. Optional browser-based components are available for CAD Web View, Case Reports, Accidents, Bookings and Current Inmates. Field Reporting also includes a browser-based field report search and view function.

Mobile Server: The New World Mobile client comprises both Mobile Messaging and Field-Based Reporting in one application. (Separate mobile client installations for Law Enforcement and Fire/EMS reflect the differences between those disciplines.) Mobile clients connect to the Mobile server, which provides access to CAD and RMS information. This server also hosts the Mobile Management Portal (MMP) application, which is used to manage all mobile configurations. The MMP fleet maintenance option manages all mobile client updates over the wireless network. After the initial mobile client installation, all updates can be managed from the Mobile server, including configuration changes and updates to mapping data.

Enterprise Security / Installation Management Solution (IMS) Server: All New World application users are managed and authenticated using Enterprise Security. This component also provides Microsoft Active Directory (AD) integration (if used) for single-sign-on functionality within the New World application suite. This server also houses the application components for Tyler IMS, which assists in platform-wide deployment of New World application server software.

GIS Server: This server hosts a central set of GIS web services used by the applications for a number of geo and mapping functions. Embedded Esri objects are used by the New World suite to leverage a wide range of available Esri features. The GIS server can support multiple instances of the GIS/Spatial Database Engine (SDE) database.

Interoperability Engine: Tyler's New World Interoperability Engine (IOE) is our internally developed interface framework designed specifically for third-party interfaces and data sharing. IOE is designed to leverage Microsoft .NET technology to support public safety standards (National Information Exchange Model (NIEM), National Data Exchange (N-DEx), Global Justice XML Data Model (GJXDM), etc.) as well as custom interfaces. The architecture of IOE makes exposing web services (Representational State Transfer (REST), Web Services Description Language (WSDL), etc.) to external sources easier to develop and manage. IOE also supports delimited file formats, secure file transfer protocol (FTP), verbose logging and email notifications. IOE is administered using a browser and is a separate installation outside of the production applications. Each individual interface is a separate Uniform Resource Locator (URL)/ Uniform Resource Identifier (URI) within IOE, allowing an administrator to change settings or restart an interface without impacting any production activity.

ElasticSearch Server: ElasticSearch is a next-generation, near-real-time search engine developed in Java and built on top of Apache Lucene (open source text search engine library). It provides a distributed, high performance, multi-tenant-capable, full-text search engine for the New World Enterprise applications and includes security features like encrypted communications, role-based access control, native AD authentication and audit logging.

Interface Server: This is an optional dedicated server for external interfaces that have been moved off of the application server to reduce resource constraints. It provides services that allow third-party systems to connect to Tyler's New World solution via the Internet. This server is usually located as a trusted server on a client's external network and is able to process requests for the New World application from Internet or intranet clients. The New World Interface Server is configured to prevent direct external access to a client's system while meeting the demands for data sharing and content publication.

Virtual Message Switch: The New World Virtual Message Switch is the State/NCIC gateway. This server supports state communication protocols including the newer Open Fox standard. The message switch logs all traffic and is configured to support state and FBI CJIS security audit requirements.

Web View Server: This server is used primarily to publish content for the CAD Web View Interface (if licensed). It may be used for other web-based interfaces depending on the specific deployment.

Uptime

Tyler's New World Standard Software will support 99.9% or greater system uptime minimizing unplanned system outages. Planned outages for system maintenance, hardware and software upgrades, etc., would be excluded from the uptime calculation. While Tyler's Licensed Standard Software provides a high degree of availability and performance, there are many system components and operational variables that are beyond our control. These other system components and variables may and can impact this requirement. Tyler's Standard Software solutions support fault-tolerant hardware, high availability data redundancy and are available with 24x7 product support.

Dependability and Performance

The system configurations proposed with an RFP are designed to support the current and projected workloads during peak system utilization/ activity. The integrated architecture of the New World suite of applications is designed to utilize the multiprocessing capabilities native to the Windows operating system for optimal system performance. Furthermore, allocation of available system resources, including processor and memory, is configurable within the application to prioritize utilization by application. The system is also based on a distributed computing architecture with critical application workloads distributed amongst several separate application servers. For example, SQL Server Reporting Services (SSRS) and Analysis Services (SSAS) are provisioned on a separate SQL virtual machine to insulate those workloads from the production SQL Server. Tyler also includes separate test/training instances of the application software that run independently of the production system. This modular system design provides Tyler clients with a scalable, reliable and highly configurable system while retaining tight integration throughout the application suite.

Disaster Recovery

A disaster recovery configuration is designed to provide local high availability and off-site disaster recovery through the use of redundant physical host servers and storage. The application will be installed on virtual machines in a traditional VMware cluster environment. Redundant physical host servers are configured as a “resource pool” to support the virtual machines that will host the applications; if one of the physical host servers fails, the remaining host server(s) will support the virtual machine workload. If the primary host facility experiences a major outage/disaster, the virtual machines will be restarted on the redundant host servers at the secondary host facility. All virtual machine files and data files shall be stored on the storage area network and replicated to the backup site using SAN replication tools.

3. Data Conversion

Tyler Conversion Experience

Tyler has a team dedicated exclusively to completing New World Data Conversion services for our clients. Combined, this team has more than 100 years of software development experience and over 21 years of experience converting data to the New World system. The team has completed hundreds of successful conversion projects.

Regardless of the system, there is a similarity to the kind of data maintained. For example, CAD data always includes call types, call times (including call received, dispatched, en route, on scene, cleared) and generally some type of unit/personnel logging and narrative information. RMS data includes Incidents/Cases (including date/time, call type, status, disposition), Case Subjects (Victims, Suspects, others like missing persons or witnesses), property/evidence attached to the case that may include storage location and chain of custody information, case offenses/ charges, arrests and related charges, warrants and related charges, tickets and related charges, etc. Understanding this similarity going into the project helps us ask the questions to make sure we can convert data accurately and effectively.

Tyler Conversion Process

Because each new client has unique requirements and resources available for data file configuration, Tyler's approach is to use our proven conversion process to develop a custom solution for each client. The data conversion process is truly a joint effort between Tyler and the client. Tyler is responsible for developing, with the client's assistance, the process that moves data from the legacy database to the New World software. The client provides assistance in understanding the structure of the legacy data and makes the decisions about how legacy codes will translate to new codes (hair color, eye color, arrest type, call type, case status, personnel IDs, statutes, etc.) using our internally developed Mapping Tool.

Detailed Conversion Process

During implementation of the RMS, the client will provide to Tyler a current extraction of the data to be converted in a format that can be read by Tyler. It is preferred that a data dictionary or other document describing the data fields and table relationships can be provided. A Tyler conversion programmer will import the data into a Microsoft SQL database (if necessary) and review the data layout and documentation with a conversion Project Manager. Initial questions or areas of concern will be identified.

The conversion Project Manager will schedule a trip to the client site to review the modules to be converted as well as cover any questions about the data or data layout. At this time the client will be familiar with the layout of Tyler's RMS system and will be expected to approve or request specific data field mapping. Screenshots of the current system populated with data may be requested to aid in the coding and testing of the conversion.

Once the analysis trip has been completed, the client will receive a conversion analysis client approval form to review the scope of the conversion and summary of discussions. At that point,

the conversion developer will task out the required coding, provide estimates for each task and set dates based on the required delivery date.

The required client time to assess the data conversion is minimized; however, it is important that a meeting take place between Tyler and the client to review how the client is using and storing data in the current system. Such meetings reduce development time and the potential need to rework portions of the conversion after delivery due to data being inaccurately mapped into the new system. This methodology for completing each unique project is depicted in the flowchart on the following page.

Tyler Personnel Resources

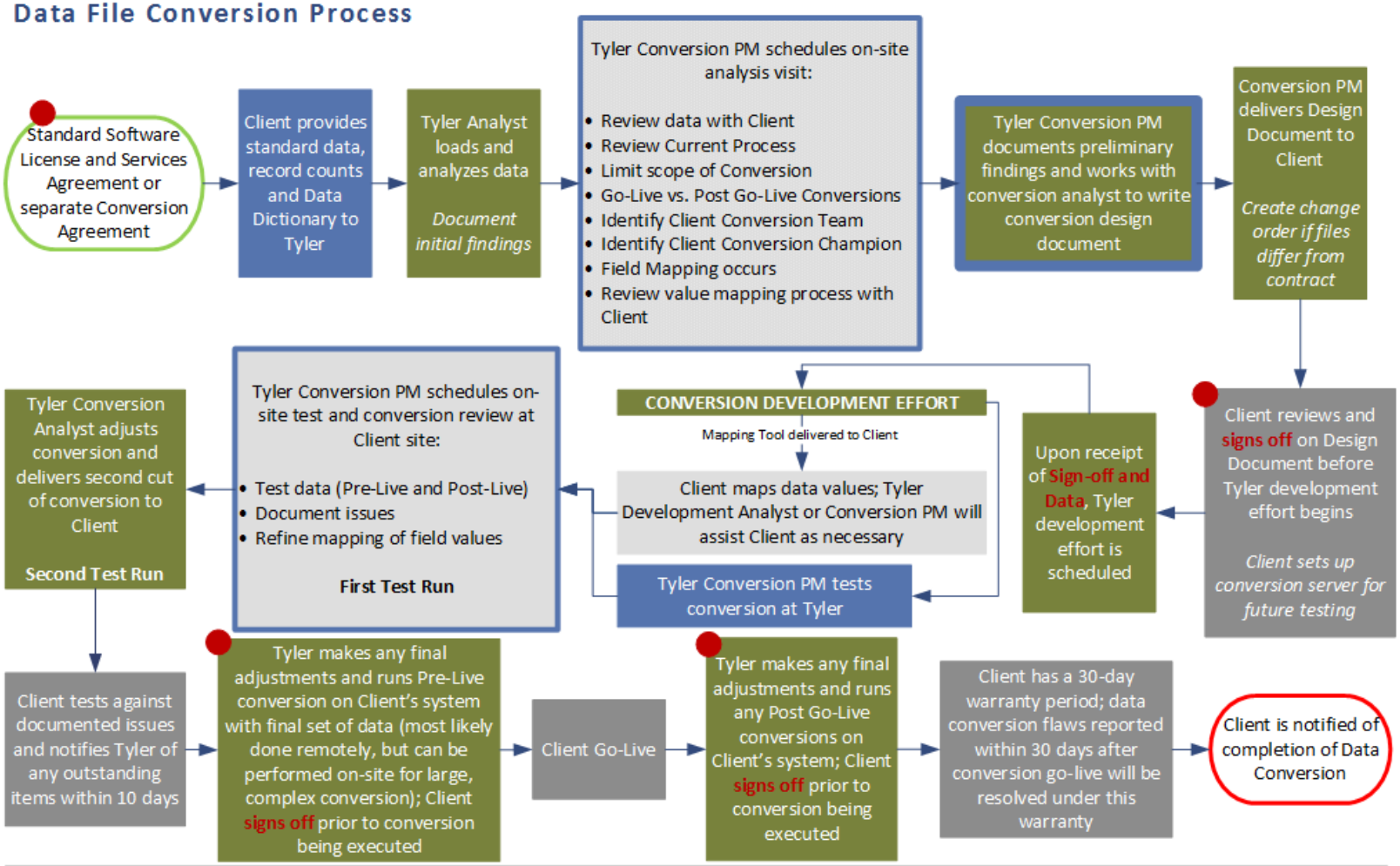
There will be two key Tyler team members involved in the conversion, a Solution Consultant and a Professional Services team member. The Solution Consultant will be responsible for developing the programs and scripts for moving the data into the Tyler database. The assigned Solution Consultant will work exclusively from our headquarters in Troy, Michigan, accessing the system remotely. An experienced Professional Services team member will be responsible for helping guide the process so that the converted data will be of the most use after it is converted. The Professional Services team member will work with the Solution Consultant in Troy and on site for analysis and later for testing. A minimum of two trips will be part of the process.

In addition to the Tyler personnel assigned to the project, it is important that the right client personnel be assigned. It is critical that client personnel assigned have knowledge of the current system and Tyler's applications. They will provide the consultation on where data should be placed and also the testing to ensure that the conversion is accurate. Client technical assistance will also be needed to help establish connectivity and other system support during the conversion.

The end result of the conversion will depend on a variety of factors. The assignment of the proper personnel and timely completion of tasks will help make the conversion successful. However, there are other factors that impact the final product. The completeness and quality of the source data will determine what eventually is available in the Tyler database. Tyler personnel will help you identify where this may cause problems and suggest alternatives for handling poor quality data.

Tyler personnel will also help evaluate which files are better suited for manual entry than conversion. Often there are infrequently used files that only have a handful of records. The time and effort to convert and test is more than the time to simply reenter those records into the Tyler database. These files will be identified prior to the development of the conversion.

Data File Conversion Process



Keys to Success

- Single data source
- Well-defined mapping
- Data conversion – NOT data cleansing
- On-site analysis and testing trips
- Dedicated testing on-site
- Identify Tyler PM and Client Champion early
- Client sign-offs
- All data is tested and ready prior to Conversion Implementation

Definitions

● = Step requires agreement by Tyler and Client before moving forward

Pre Live = Conversion of data needed for Go-Live (housing information, names, evidence, etc.)

Post Live = Post Go-Live Data Conversion (data that is not available at Go-Live, such as open incidents and accidents, etc.)

Color Key

(colored border indicates combination)

- Tyler PM Team
- Client
- Tyler Conversion Development
- On-Site

Client Personnel Resources

The following identifies key staff and organizations who serve as points of contact for the data file conversion, as well as the role that each of the key personnel will have in the data conversion process.

- **Overall Conversion Manager** – This person will be responsible for the coordination of all activities related to the conversion and must have the authority to make decisions regarding the conversion process.
- **Application Experts** – There should be one Application Expert for each application who has a working knowledge of the software we are converting and also a working knowledge of how the application is implemented in Tyler's software.
- **Technical Support** – This individual will work with the Tyler Solution Consultant on the technical aspect of the conversion.

Tasks include:

- Participation in Analysis of Data (1-2 Days)
- Mapping of Validation Sets and Master Files
- Testing of converted data
- Verifying the accuracy of the overall conversion including fixes done after testing
- Certifying that the conversion is correct and ready to run into the "live" database

The Technical Support person should be available when needed during the delivery of the test conversion and the final conversion.

4. Support and Warranty

Maintenance and Services Agreement

Client Success Organization

Tyler recognizes how important ongoing success is to our clients; therefore, we employ a team approach. To ensure success we surround our clients with a diverse team made up of the following components:

Client Success is a key component of your proposed public safety software solution. Tyler understands that in order to retain "Clients for Life" we must do more than keep our software and services up to date with technology and industry trends and requirements. To keep clients satisfied over the long term, we must provide the superior ongoing support our clients need to ensure that they get the most value out of their solutions. After all, in the overall solution lifecycle, your relationship with us will likely be the longest.

Tyler offers our maintenance and support services designed to meet all of your post-implementation support needs. Tyler does not differentiate services during and after a warranty period. To provide the highest level of service, our standard for support includes the following:

- Access to our Support Services Team via a toll-free line
- 24/7 online access to software documentation, issue tracking and reporting, educational tools and training videos and software downloads
- As Part of Tyler's Evergreen philosophy, you are entitled to release upgrades for licensed software for no additional licensing fees
- Access to technical and business account management
- Use of the Idea Community to provide direct input into the future direction of our products
- Opportunities to participate in other active User Communities, including our annual Connect Conference, regional User Groups and Advisory Groups
- Ongoing Tyler communications and information (via email, postings, blogs or webinars)

The Client Success team at Tyler strives to help each of our clients become expert consumers of their solution. We understand that each client's solution is tailored to meet their unique

requirements. We will work to build a relationship with each client that includes an understanding of their system and operations. Not only does this help us provide better support to each client on an individual basis, but it also helps us assist other clients with similar requirements or issues. We do this by leveraging the knowledge we have gained from similar clients.

Support Services Team

Once live, utilization of our Support Services Center is open to clients. After a thorough and detailed turnover meeting during go live week, clients gain access to both the online portal and support telephone numbers for standard and after-hours emergency support. This turnover period is an important step in establishing a good long-term working relationship and setting appropriate expectations.

Tyler's hours of operation for standard support are from 8:00 a.m. to 9:00 p.m. Eastern Time, Monday through Friday. The primary source for help and ongoing support for your public safety solution is managed via a toll-free hotline that is USA-based at our public safety headquarters in Michigan. All support and development take place at these headquarters. In addition to the service provided during standard support hours, Tyler offers Emergency/24x7 support as a standard benefit for CAD software; this premium support option may be purchased for other applications. This service is intended for emergency use and is designed to get a client system operational in the event of issues that arise outside of standard support availability. Whether day, night or weekend or holiday, our clients' calls for help are answered quickly and by specialists ready to assist.

The strength of Tyler's support center lies in its superior staff, composed of individuals with a detailed understanding of the application capabilities, solid technical aptitude and strong customer service skills.

Ease of supporting our clients is magnified by using remote access tools to access client systems. This gives our personnel a quick and direct view of any reported issue. We may quickly assess the situation and perform work as if they were actually present at the client location. This facilitates clear communication and more timely issue resolution.

While we do not limit access to our support center to a particular user, clients generally find it most efficient to have a few application experts and system administrators maintain the most frequent contact with us. This leads to an established working relationship and helps eliminate miscommunications and duplicate calls regarding the same issue.

Case Severity Based Response Times

Our support services teams are armed with multiple escalation paths. Because our entire support organization and development staff operate out of our public safety division headquarters, we work seamlessly together to best meet the needs of our clients. While a large percentage of issues are closed on first contact by our support agents, these escalation paths may be utilized if issues persist beyond the issue owner's expertise. Cases that cannot be closed immediately are prioritized based on the severity of the issue, where clients will receive regular updates as triage progresses.

To ensure that reported issues are resolved in a timely manner, Tyler defines severity as follows:

Severity	Nature of Issue	Response Time	Resolution Goal
Priority 1	A defect that renders the Tyler Software inoperative or causes the Tyler Software to fail catastrophically.	Within 1 hour	24 hours or less
Priority 2	A defect that substantially degrades the performance of the Tyler Software but does not prohibit your use of the Tyler Software.	4 hours	Service Pack or Hot Fix
Priority 3	A defect that causes only a minor impact on the use of the Tyler Software.	N/A	May include in subsequent release

Case/Issue Tracking

Tyler uses an internal client relationship management tool to manage reported issues:

- This system drives what our clients see and access via the client portal.
- It provides our agents immediate and up-to-date access to all relevant information about your agency and your system, including contact information, licensed software modules, current installed release number and all closed and open cases.

During any call, our agent will create a case and attempt to solve the issue.

- All significant information, such as what error messages you are receiving, what steps you took and what you are expecting to occur, will be collected and documented.
- Screen shots and log files may also be collected and attached to the case.

Support Services Response Times

- We answer over 99 percent of all calls placed; very seldom do we lose a client call due to a long hold time.
- 90 percent of calls are answered in less than 2 minutes, with an average answer speed of 45 seconds or less.
- Our agents close approximately 80 percent of all reported issues during first contact.
- Client portal submissions are responded to within two business days; clients are asked to call for urgent or quickly needed resolution on issues.

Support Services Response Times for 24/7 Emergency After-Hours

- All calls are answered immediately by an answering service and transferred to an on-call expert.
- In rare situations, if the on-call expert is not immediately reached, you leave a message and we will respond within 30 minutes at the maximum.
- Our on-call experts work quickly to ensure the emergency situation is rectified quickly.

- Any follow up or root cause of emergency issues is handled by our support team the following business day via a case that gets reported by the on-call expert.

Critical Situation Management

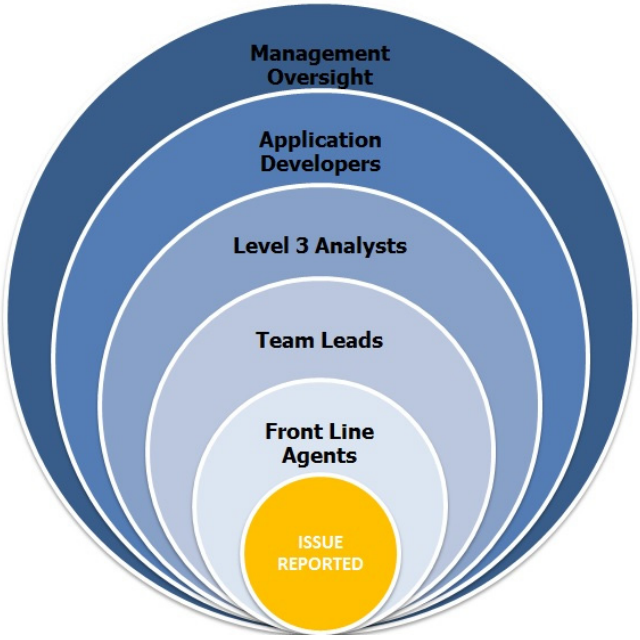
When confronted with a Priority 1 situation, agents focus on the following key objectives:

- Rapid issue identification and resolution
- Efficient and seamless escalation to Tyler's internal resources
- Development and communication of action plans for ongoing issues

To attain these objectives, agents will:

- Quickly assess the situation during the call
- Provide immediate notification to peripheral support teams internally at Tyler
- Swarm quickly to recover quickly

Swarming is a collaborative method that emphasizes real-time handling of issues by a team of experts and has been shown to deliver faster and more effective response and resolution.



Our 24/7 Online Support Resources

Our client service website at TylerTech.com/Client-Support provides access to valuable information and services at your convenience, 24 hours a day, 365 days a year.

From TylerTech.com/Client-Support, our clients can:

- Report a new case or check the status of an existing case
- Upload and download files via Secure File Transfer Protocol (FTP)
- Download new software releases
- Access product documentation and important release notes
- Browse upcoming events and conferences, and exciting product announcements

Also at TylerTech.com, clients can access our new online mass collaboration and crowdsourcing tool called Tyler Community, where they can find answers, connect with peers and gain insight via a user-driven support community. Comprised of Tyler clients, product users and staff, Tyler Community allows participants to:

- Search forums, discussions and wikis to solve problems before submitting a support ticket
- Connect with peers and Tyler staff in a collaborative, interactive environment
- Share best practices and knowledge about products or services
- Capture and reuse collective knowledge

Tyler Community features include:

- ***Blogs:*** A place for informative articles written primarily by Tyler staff around topics like industry news, announcements, tips-and-tricks and best practices.
- ***Forums:*** The designated place to start discussions and question-and-answer threads, and the primary support feature in the Community.
- ***Library:*** A library of downloadable media available to any Community member, including user guides, videos, images, documents and more.
- ***Wiki:*** An interactive research area to create articles around shared knowledge and training resources. Wikis are often a work-in-progress, edited by the Community.

Tyler Community empowers our clients to:

- Find answers to questions … whenever, wherever, 24/7/365
- Gain knowledge about Tyler and our software products and services
- Search forums, libraries, blogs and wikis to try and solve problems before submitting a support ticket
- Gain insight on how to improve a business process or service to citizens
- Get input on best practices and lessons learned by discussing business issues with members in similar roles
- Expand business relationships by developing connections with like-minded professionals

Account Management Team

Tyler employs a team approach to client support that is customized based on our clients' needs. In addition to our world class client support center, Tyler surrounds our clients with a team made up of the following:

- **Client Executive:** Responsible for developing and maintaining the overall relationship with our clients to better understand the goals and needs of the client and at the same time assist in building a roadmap for success.
- **Client Support Account Manager:** Responsible for client satisfaction and overall technical health for Tyler deployed products and services.
- **Executive Sponsor:** Responsible and accountable for client satisfaction with Tyler.

Education Services

As part of onboarding and ongoing education programs, our entire support team is certified in the Help Desk Institute (HDI) Customer Service Representative (CSR) program. HDI is a professional association that was created for the technical support industry. They are a source for professional development, with solid offerings to promote organization-wide success through exceptional customer service. HDI certifies thousands of professionals each year, and Tyler is a proud member of this organization.

Tyler University

Tyler University is Tyler's continuing education platform. With hundreds of courses to choose from, there is something for everyone to learn at Tyler U!

- 24/7 access
- Ability to revisit important topics
- Hundreds of courses covering Tyler products
- Learn functionality before, during and after software implementations
- Reduced new employee training costs
- Monitor employee progress and transcripts
- Expand product knowledge by learning new functions
- Microsoft Office training, beginner to advanced

From the convenience of your office or a regional location, Tyler's team of experts involve participants in engaging, relevant, hands-on curriculum to help teach programs and processes that can be used the same day. Registrants get live, individualized guidance at the time it is needed whether they are in the same room or a virtual environment. Course selections include product-specific, in-depth training focusing on the Tyler solutions you use daily.

User Communities

Annual Connect Conference

Tyler hosts an annual national conference open to all Tyler clients. On average, there are over 5,000 attendees. The primary focus of the conference is to provide educational opportunities for our clients, including software training sessions and workshops on recently released and upcoming software features designed to help users get the most out of the latest enhancements. Another important aspect of the conference is the unique opportunity it provides for networking. Clients have the chance to meet colleagues from across the country and schedule one-on-one meetings with Tyler personnel. Finally, the conference is yet another opportunity for our clients to provide suggestions for future development initiatives during the focus groups and roundtable sessions.

Regional User Groups

Many Tyler clients have formed regional user groups throughout the country with the goal of sharing information about their Tyler solutions, especially related to state or local concerns. The user groups are governed in partnership with our clients and are typically held at a volunteering client site to keep cost low. When the user groups plan their meetings, they work together with

a Tyler Client Executive and Client Support Account Manager to determine the agenda that best suits the needs and interests of their specific group. Tyler provides support such as training sessions, demonstrations of new software or breakout sessions at the request of the group. Typically, these groups meet once per year in the fall timeframe. Here is a listing of our current Regional User Groups:

- Alabama
- Arizona
- California
- Connecticut
- Florida
- Georgia
- Illinois, Indiana and Iowa: “I3”
- Kansas, Missouri, Arkansas and Oklahoma: “KAMOUG”
- Louisiana
- Maryland and Virginia: “Mid-Atlantic”
- Minnesota, Wisconsin, North Dakota, South Dakota: “Upper Midwest User Group”
- New York
- Pennsylvania
- North Carolina and South Carolina
- Ohio, Kentucky, West Virginia: “Ohio River”
- Oregon
- Colorado: “Rocky Mountain”
- Texas
- Washington