A SOLUTION PROPOSAL FOR:
County of San Mateo, California

Request for Information
RFI 011316CAD: Computer Aided Dispatch and Mobile Systems

PRESENTED BY:
Tyler Technologies

February 15, 2016

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Tyler Technologies, Public Safety Solutions, 840 West Long Lake Road, Troy, Michigan 48098
248-269-1000 · 248-879-2284 fax · www.tylertech.com

840 West Long Lake Road
Troy, Michigan 48098

P: 248-269-1000
F: 248-269-1020

www.tylertech.com

February 15, 2016

Jaime D. Young
Director, Office of Public Safety Communications
400 County Center – PSC100
Redwood City, California 94063

RFI 011316CAD: Computer Aided Dispatch and Mobile Systems

In November 2015, New World Systems, the country's largest private public safety software vendor, merged with Tyler Technologies, the largest publicly owned provider of end-to-end information management solutions for local governments in the United States. It is as Tyler's Public Safety Solutions provider that we are pleased to respond to the County of San Mateo's Request for Information (RFI) for Computer Aided Dispatch and Mobile Systems.

Headquartered in Plano, Texas, Tyler provides software and services to more than 13,000 local government offices throughout all 50 states. We offer the industry's broadest line of software products, giving clients a single source for all their information needs in several major areas: Public Safety, Courts and Justice, Financial and Human Resources, K-12 School Solutions, Property Appraisal and Tax, Pension Management, Citizen Services, Land and Vital Records and Document Management. In San Mateo County, the courts use Tyler's Odyssey Case Manager, e-Filing and SoftCode (Civil Processing) solutions.

Tyler's New World CAD is a .NET 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. New World CAD is NG9-1-1 enabled and embedding Esri's Advanced ArcGIS Server and Runtime applications directly into the solution makes it easier for our customers to keep critical map data current. We are the only vendor that does not require agency staff to convert or manipulate GIS data.

Our experience in replacing legacy Northrop Grumman/PRC CAD systems is unparalleled. We have two customers in Snohomish County, Washington, that formerly used the Northrop Grumman/PRC solution. The Snohomish County Police Auxiliary Services Center (SNOPAC 911) and Southwest Snohomish County Communications Agency (SNOCOM 911) dispatch for 54 agencies with more than 1,200 mobile users.

Their combined call volume for police and fire is nearly 1 million calls per year. We are also currently working with the Sacramento Regional Fire Emergency Communications Center (SRFECC) to replace their Northrop Grumman/PRC system with New World CAD. The SRFECC handles more than 350,000 phone calls a year

The County will appreciate Tyler's extensive presence in California, with more than 35 customers who provide each other with support through our very active California user group. Our evergreen perpetual licensing and EverGuide continuous improvement paths will help the County to achieve your goals for software and services over the long term. Many of our customers are able to upgrade to our annual version release without incurring project-related expenses, which greatly reduces the cost of ownership.

Greg Sebastian, President of Public Safety Solutions, is Tyler's authorized representative regarding our response to the County's RFI. The main contact for questions concerning our response is:

Ken Peters
Account Executive
840 West Long Lake Road
Troy, Michigan, 48098
Telephone: 707-631-7971
Fax: (248) 434-6263
Email: Ken.Peters@tylertech.com

We look forward to the next steps in your review process.

Sincerely,

Greg Sebastian
President

TYLER TECHNOLOGIES
Public Safety Solutions
840 West Long Lake Road
Troy, Michigan 48098
Office: (248) 269-1000

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1.0 Application Software Descriptions

Tyler's New World software solution was designed to meet the needs of Law Enforcement, Fire and EMS agencies in both single and multi-jurisdictional capabilities. The comprehensive set of integrated applications, which allow for immediate update of all information, includes modules for managing dispatch, records and corrections activities. In addition, our suite of Mobile software products provides instant access to the New World database and State/NCIC via laptop computers, as well as Field Reporting.

New World software is designed for an interactive, online mode environment for ease of entering and editing data. This solution allows for tremendous flexibility and functionality. The resulting interaction between the data and the appropriate master file assures the validity and integrity of the information.

The software is native to the Windows Server products to take full advantage of the functionality of the hardware and operating system, including SQL Server relational database, Windows look and feel, drop-down menus, drag and drop features, and extensive online help.

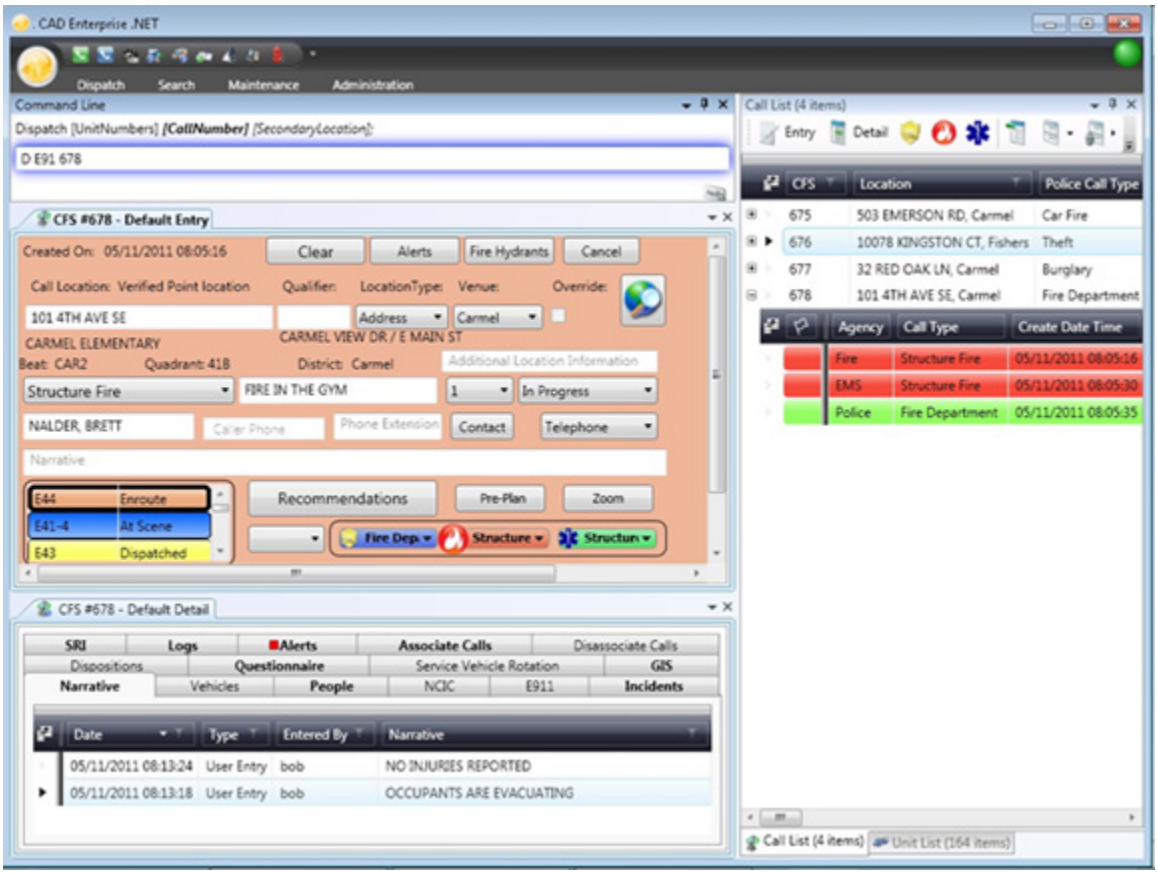
1.1 Functional Descriptions

1.1.1 Computer Aided Dispatch (CAD)

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

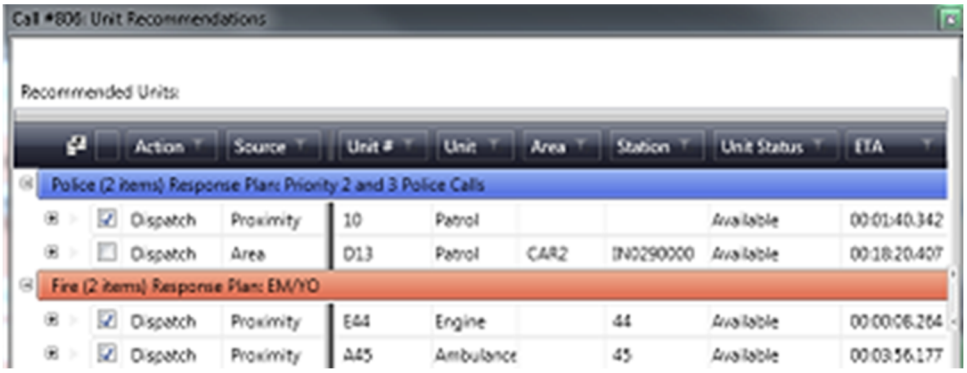
New World CAD was architected to handle the very largest CAD centers operating under heavy loads (greater than 1 million calls per year) without impacting performance. It is designed to be fast while supporting a feature-rich application using common Windows functionality. While many factors will affect 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.



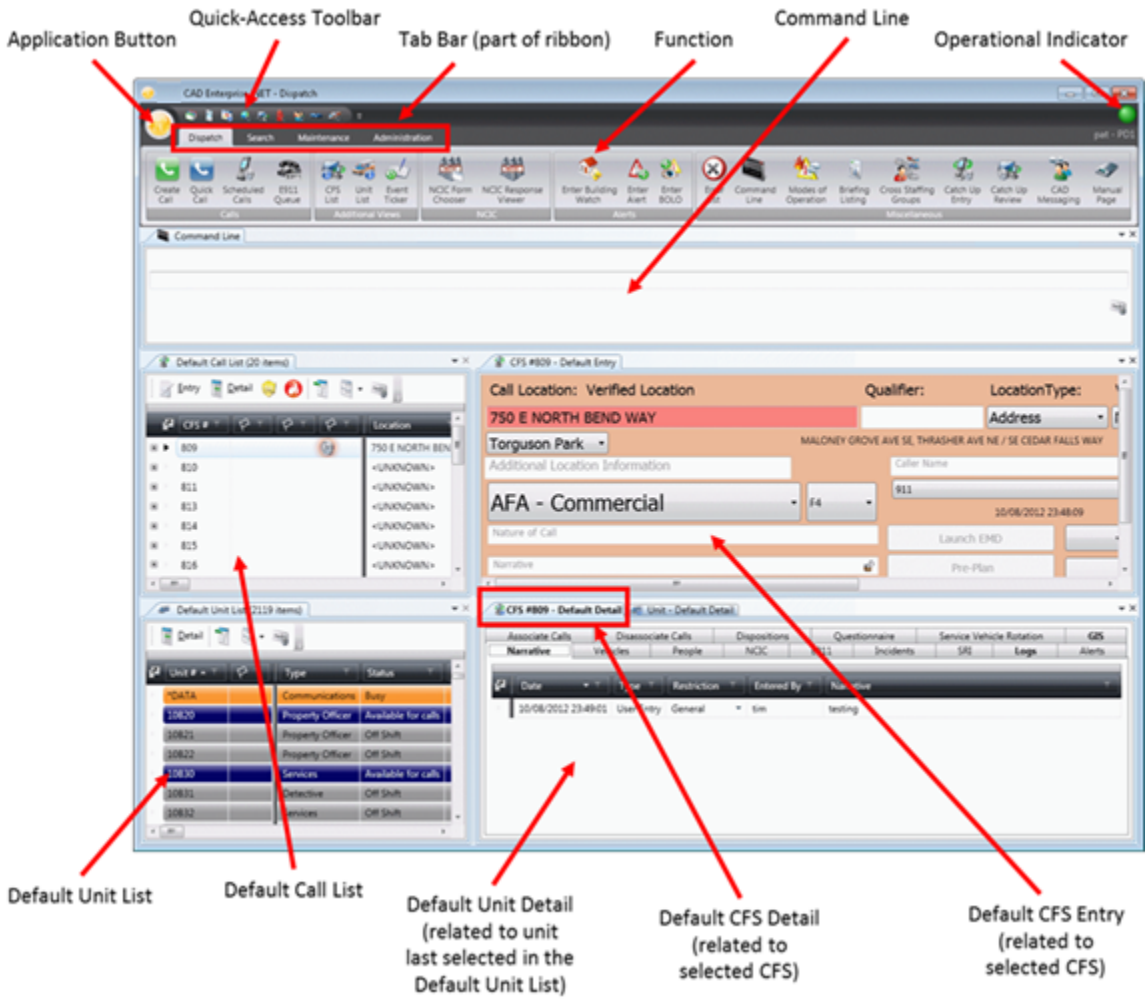
Proximity Dispatch showing both Police and Fire.

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.

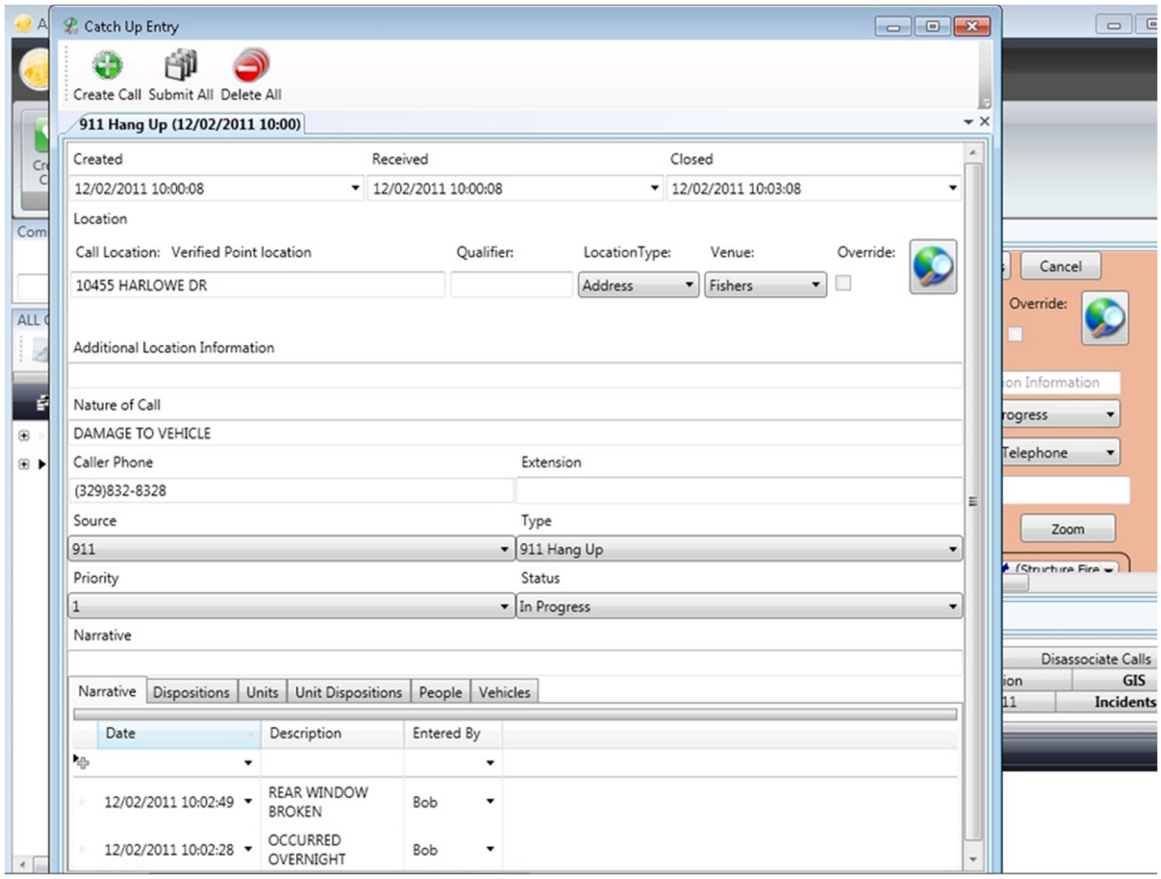


Sample CAD workspace on one monitor.

CAD Catch-Up (Stand-alone Client)

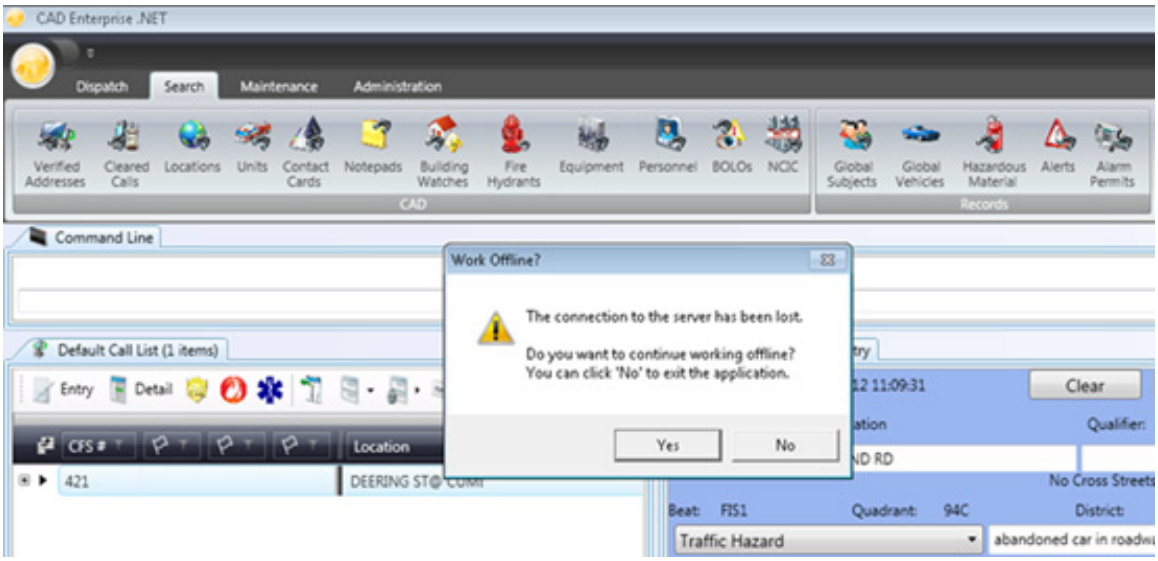
Tyler's New World CAD application provides "Catch-Up" functionality as part of the base solution. This feature allows call takers, dispatchers and supervisors to enter information into CAD when the servers or network are unavailable due to planned maintenance or an unplanned outage. The CAD client can 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

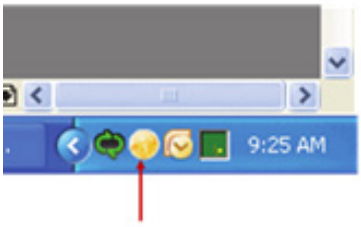
Unit Recommendations have been enhanced in New World CAD to provide dispatchers with automatic unit recommendations based on proximity and resources with consideration for street networks, skills, equipment and more. This robust functionality decreases the amount of time it takes to dispatch required 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

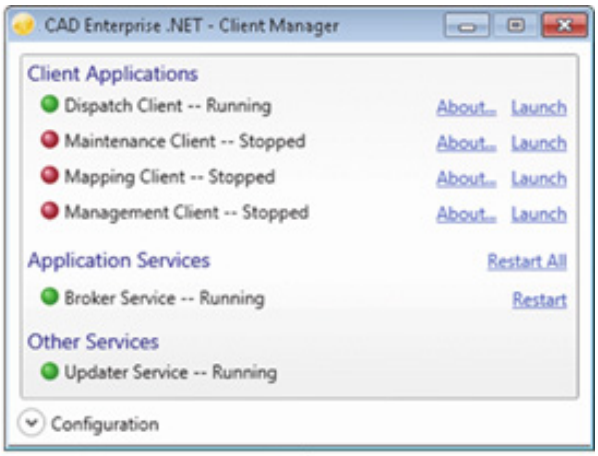
The Mapping and GIS functionality embedded in CAD leverages the latest Esri technology. All GIS data across the New World suite is managed and updated from a common SDE geodatabase using Esri desktop applications. Any file format supported by Esri can be used in the SDE. This provides dispatch with access 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.

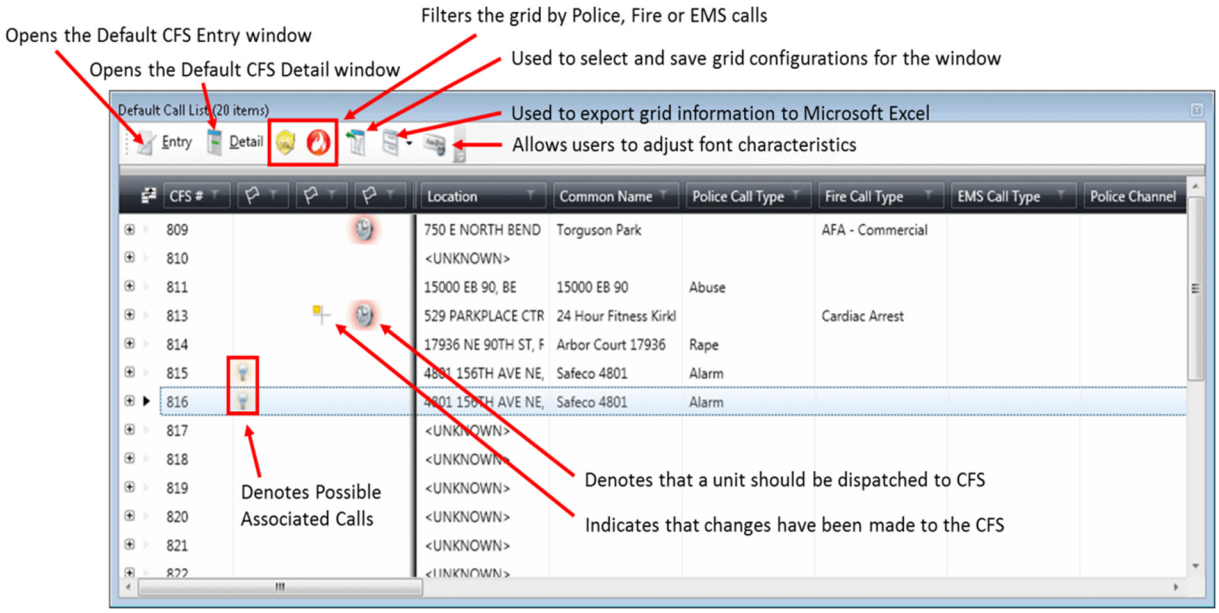
Dispatch Client Functionality

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

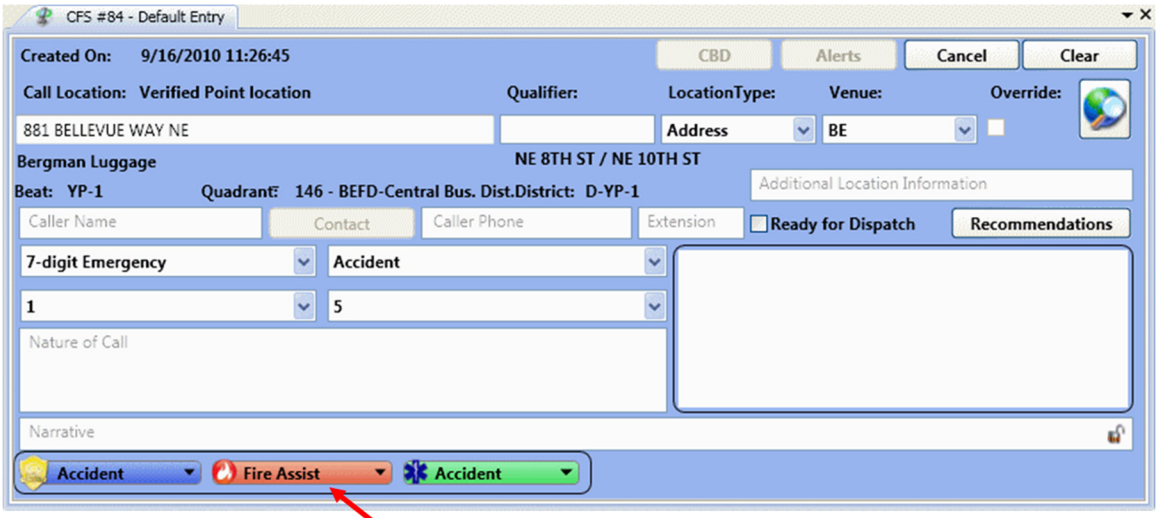
Users can right-click on a CFS in the Default Call List to access additional options that allow them to open the selected CFS, clear the selected CFS, cancel the selected CFS and zoom to the selected CFS on the map (if the Mapping Client application is running).

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.

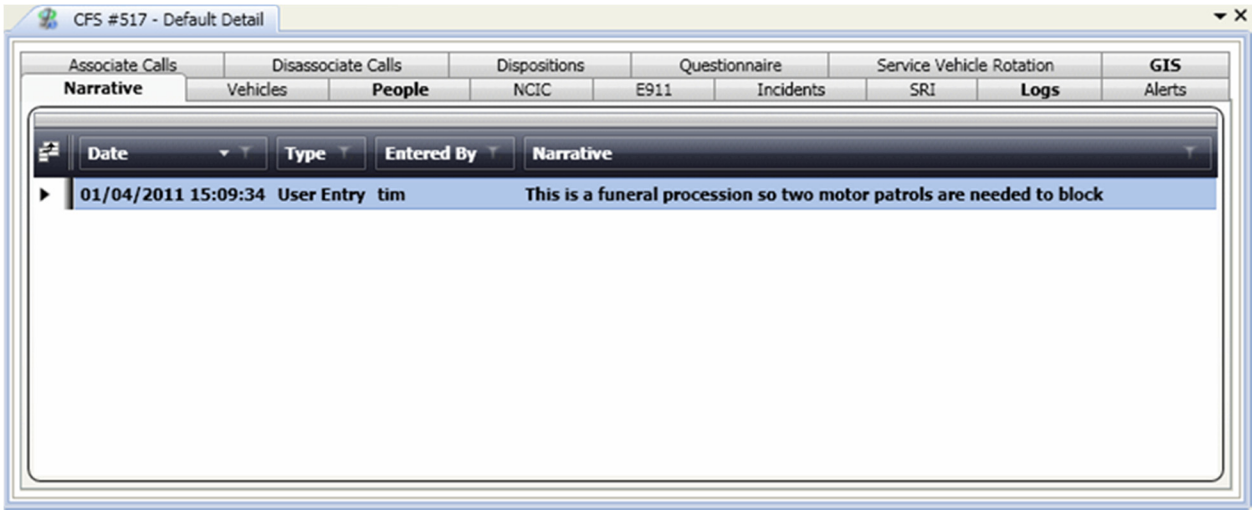


Multi-Jurisdictional Call Types

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.

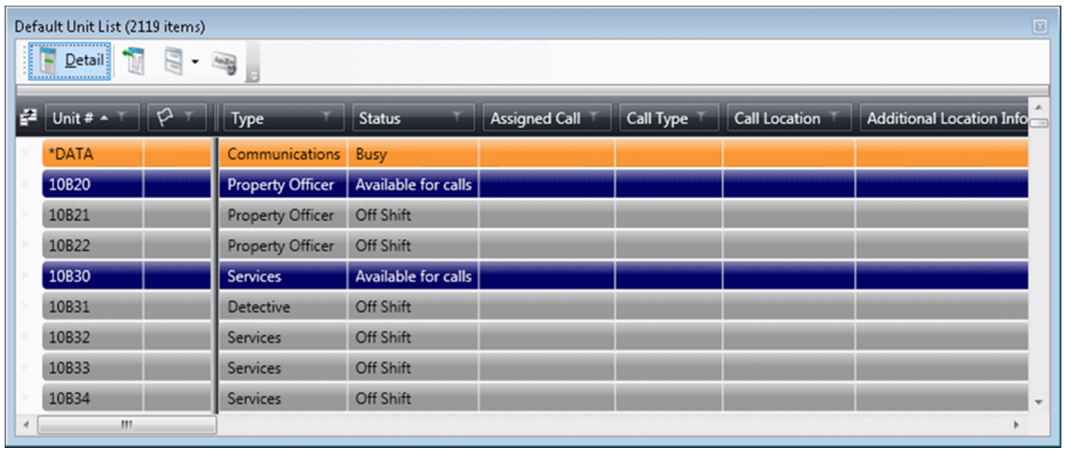
Service Vehicle Rotation – The Service Vehicle Rotation tab allows users to locate a specific type of service vehicle, such as a wrecker or street-cleaning vehicle, to assign to a CFS regardless of the vehicle's service rotation sequence. This information is contained on two sub-tabs: Rotate and Rotate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



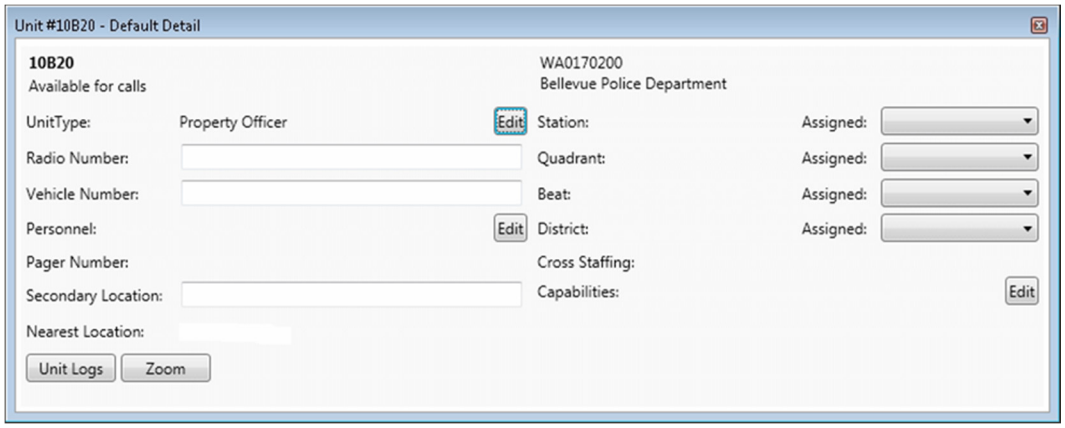
Unit List

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.

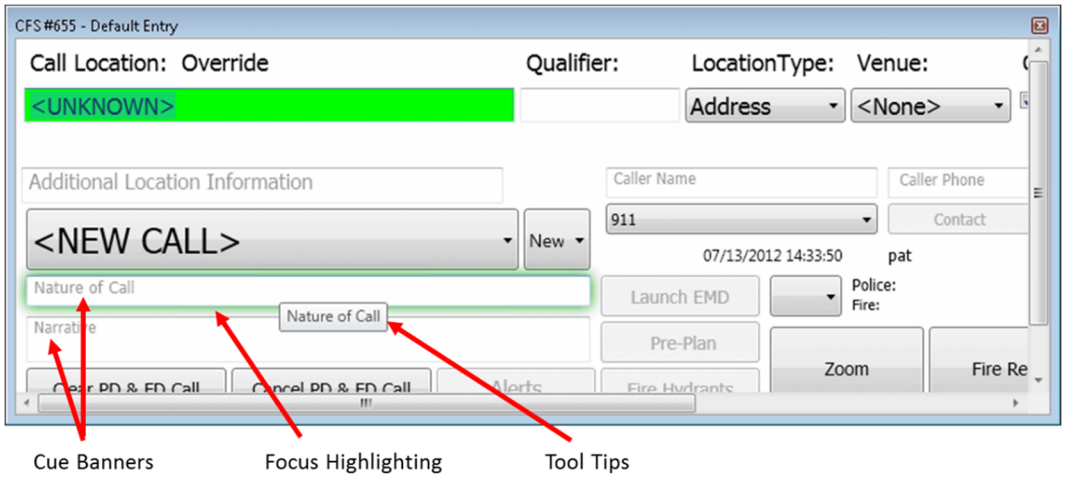
Default Unit Detail

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.

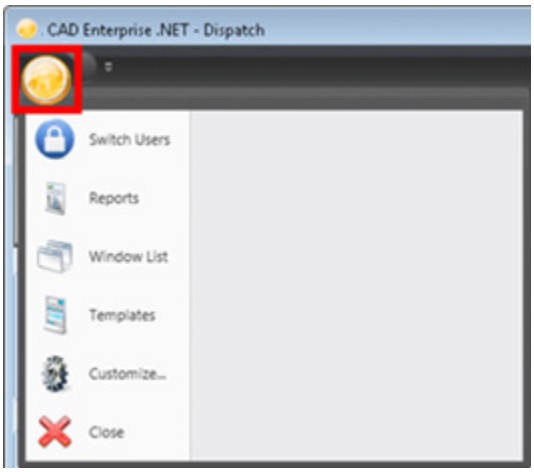
Templates – Templates allow users to save specific user workspace configurations so they do not need to set them up every time they launch the application. Once a user sets up the windows of the application a certain way, that setup can be saved for use each time the application is launched. Templates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

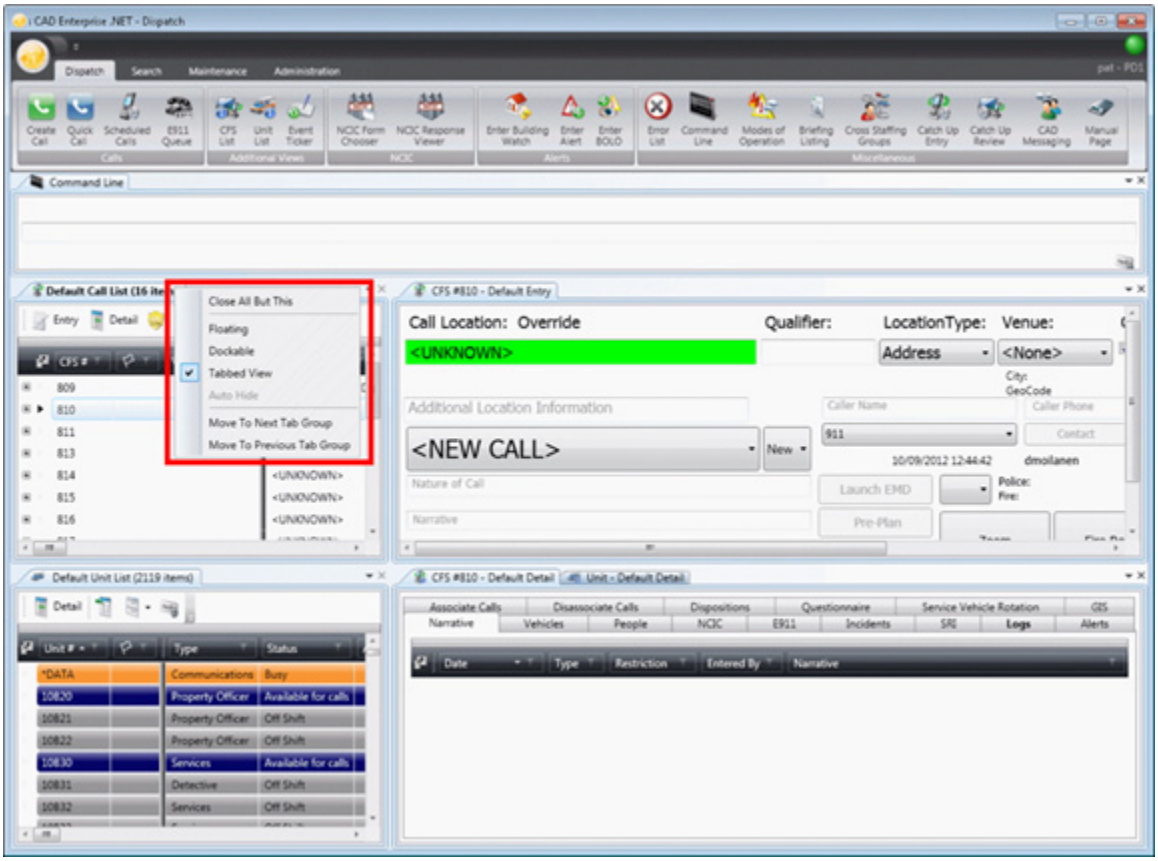
Rearranging the CAD Window

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

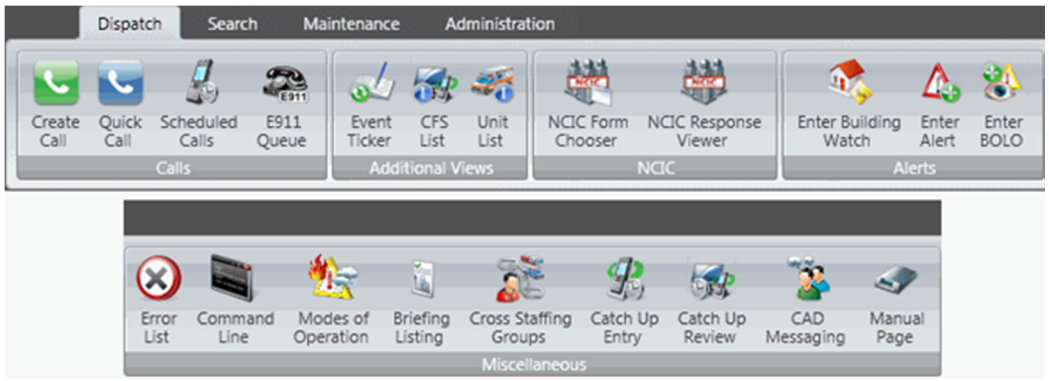
The Window Positioning Menu dialog is accessed by right-clicking on a window's tab or title bar. Users are given the option to arrange the windows in one of three ways: floating, dockable or tabbed view. Each window positioning selection offers a different menu that offers additional positioning options.





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

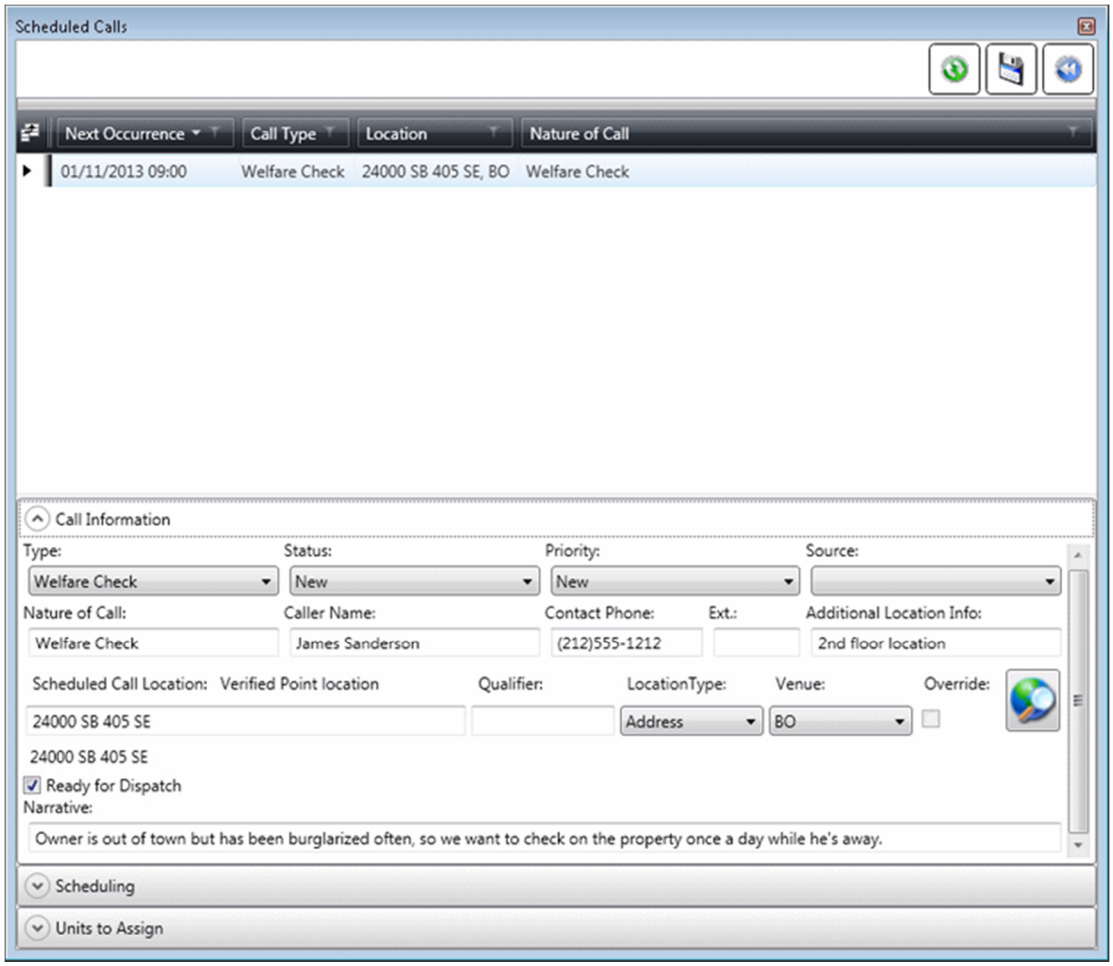
The Dispatch Client application comes standard with the New World geo-verification control that automatically verifies locations when a user tabs out of a location field. A full geo-verification window can be displayed that lists match candidates in order, in both text and map view.

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

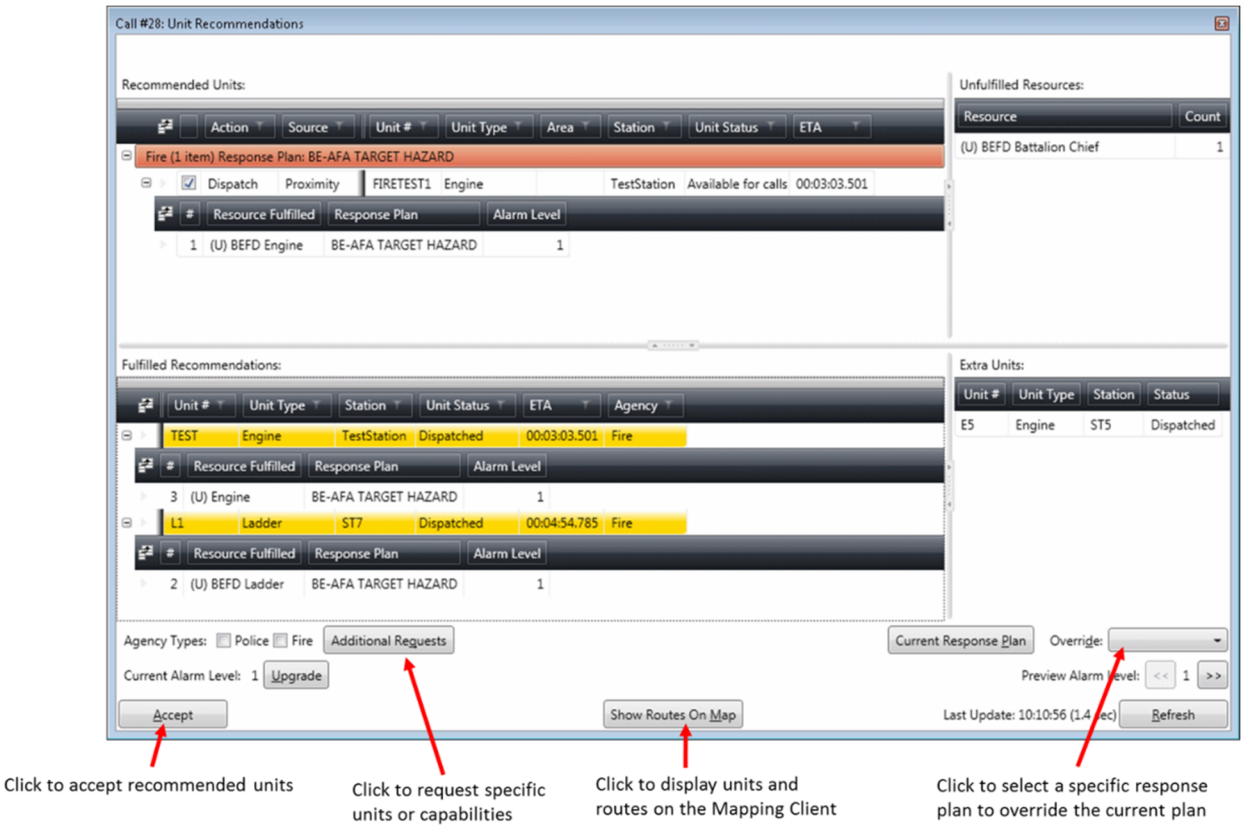
At times, it is necessary to schedule a CFS that has yet to occur but is planned, such as a funeral procession, a street closure for an event or transportation of defendants to/from court proceedings. The Scheduled Calls window allows dispatchers to enter information pertaining to scheduled calls so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



Unit Recommendations

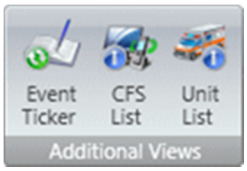
The New World CAD Dispatch Client features a thorough and agency-definable unit recommendation procedure for Law Enforcement, Fire, EMS and other unit types with the click of button.

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-

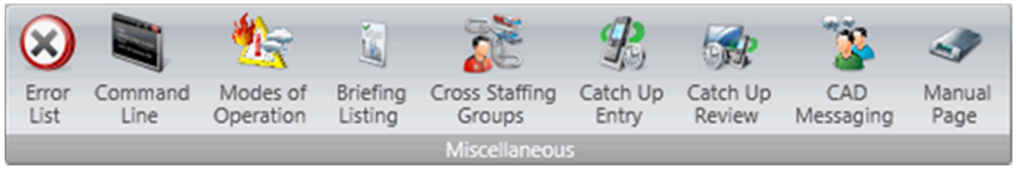
host interface. The State/NCIC entry forms (masks) are agency-configurable and CAD includes a State/NCIC forms builder.

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.

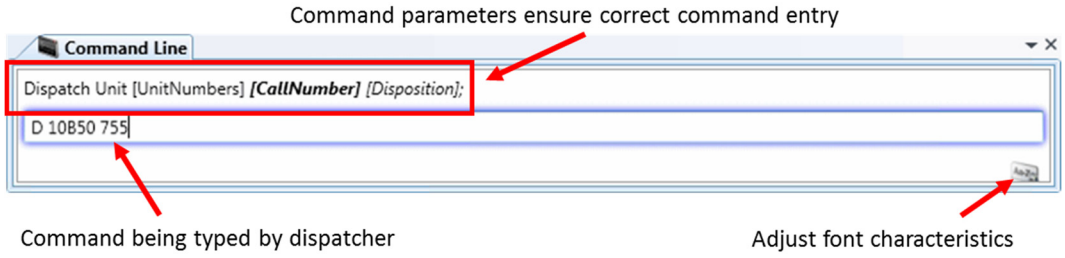
Miscellaneous Functions

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.

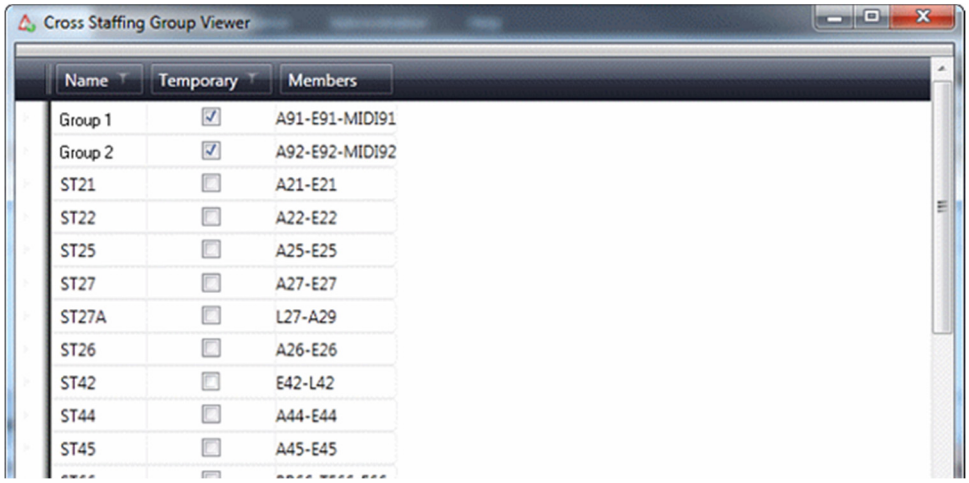
Commands are agency-defined, which allows dispatch to continue using any existing commands if desired. If the user is entering a command with an address or location, the system will show the interactive location prompt and automatically geo-validate that entry.

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.

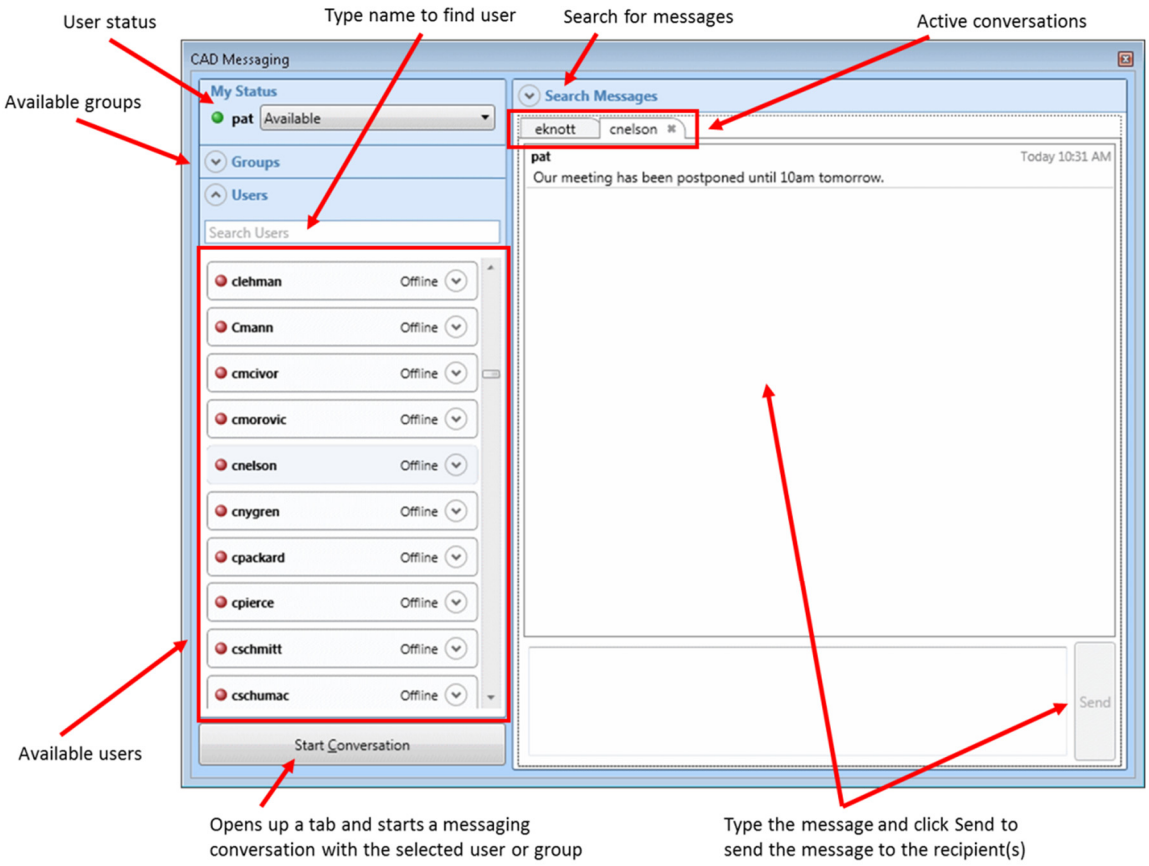
Cross Staffing Groups

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. As an 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.

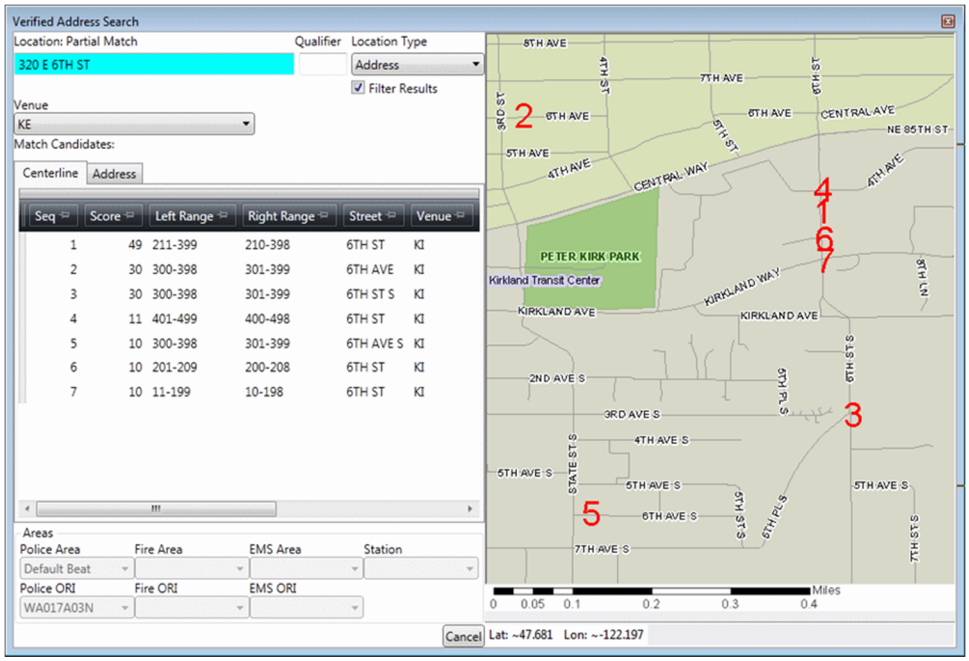
Search Functions

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.



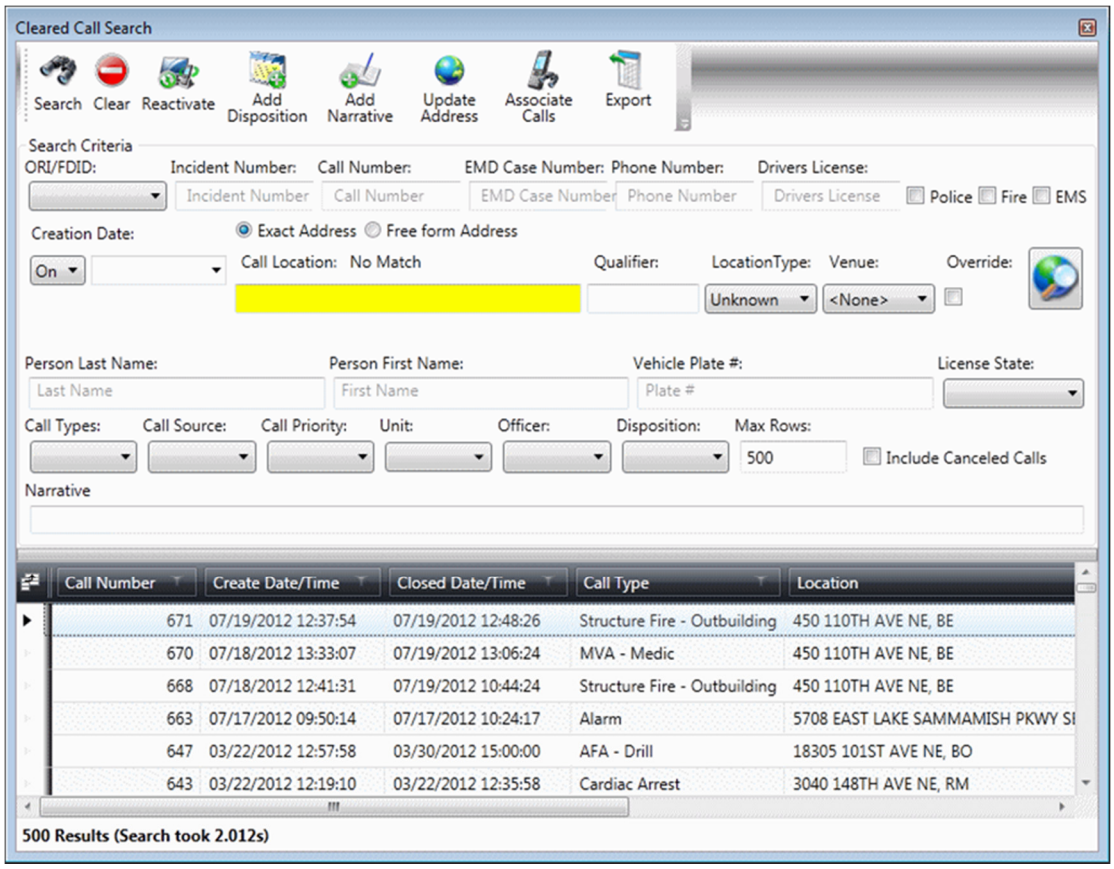
Geo-Validation Window displaying both text- and map-based match candidates.

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.



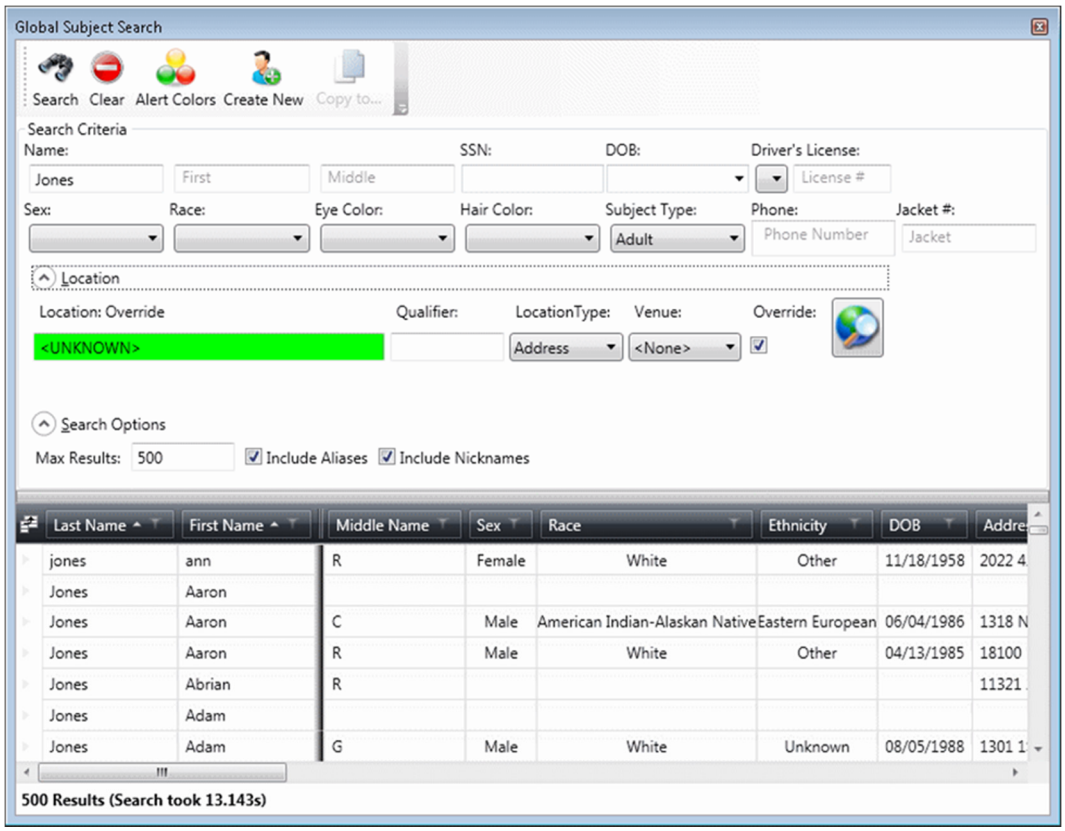
Cleared Call Search – The number of results display in the bottom status bar.

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.

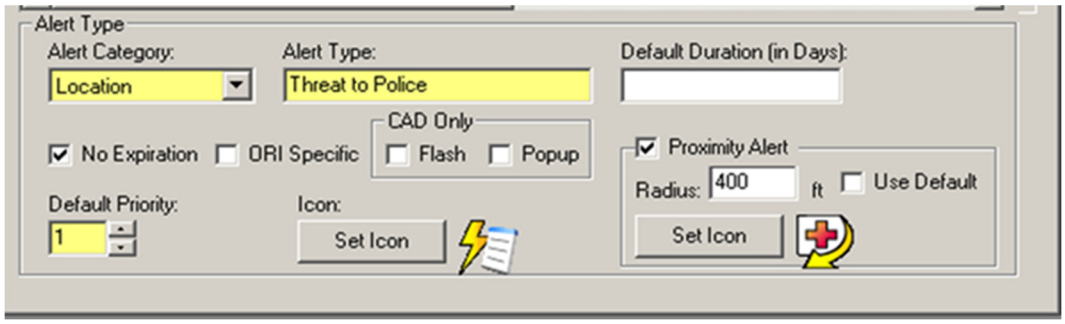


Global Subject Search from CAD.

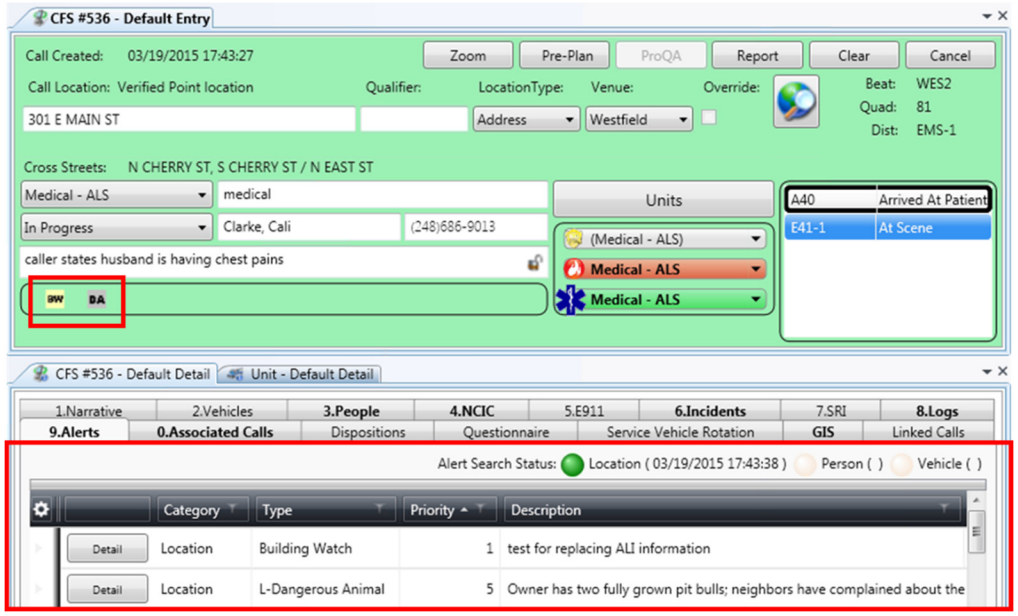
Alerts

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.



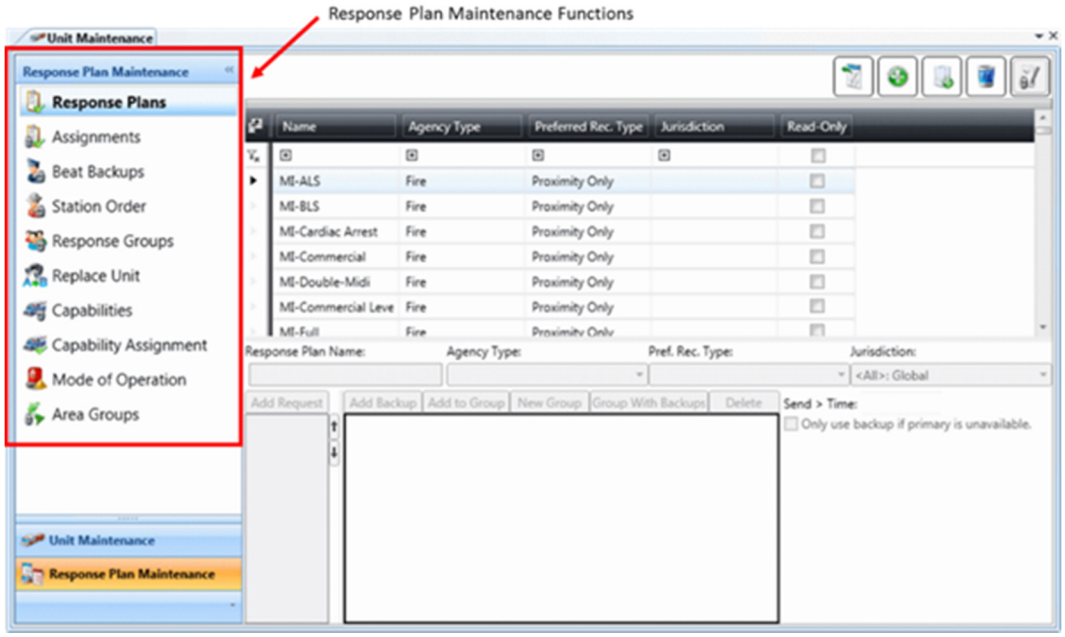
Sample CFS entry screen showing alert icons and alert details.

Maintenance Functions

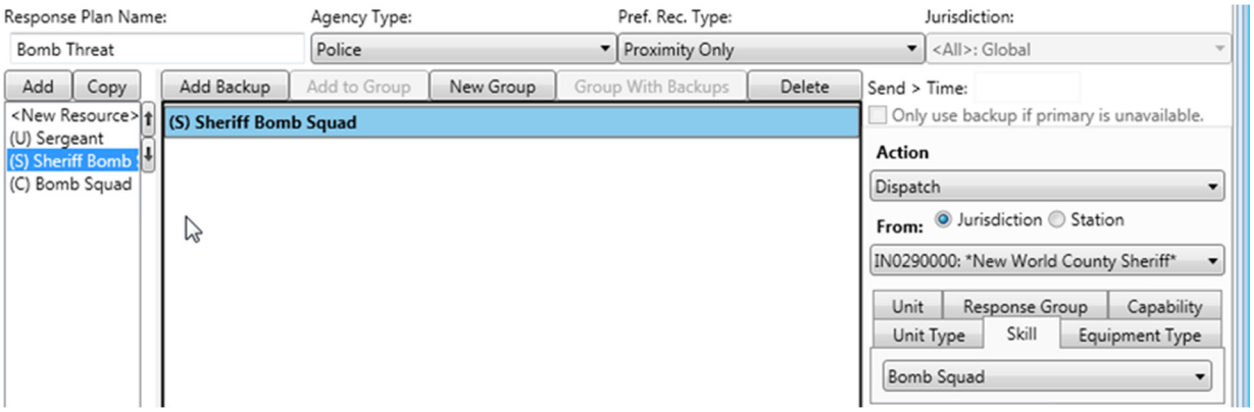
CAD features a number of maintenance options that allow dispatch personnel to configure different aspects of the software as needed.

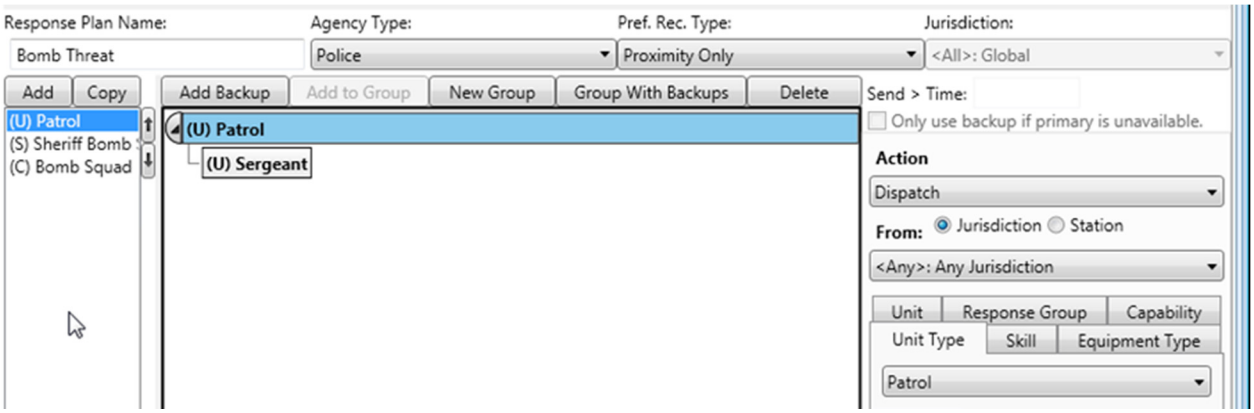
Response Plan Maintenance

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.

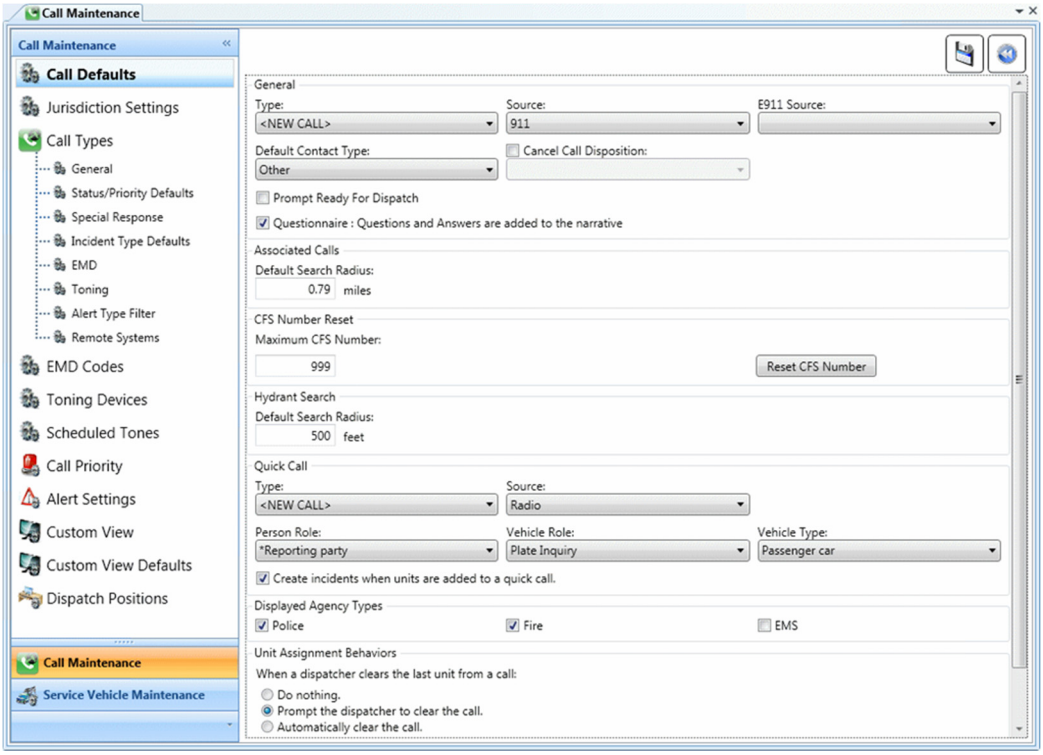




Calls Functions

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

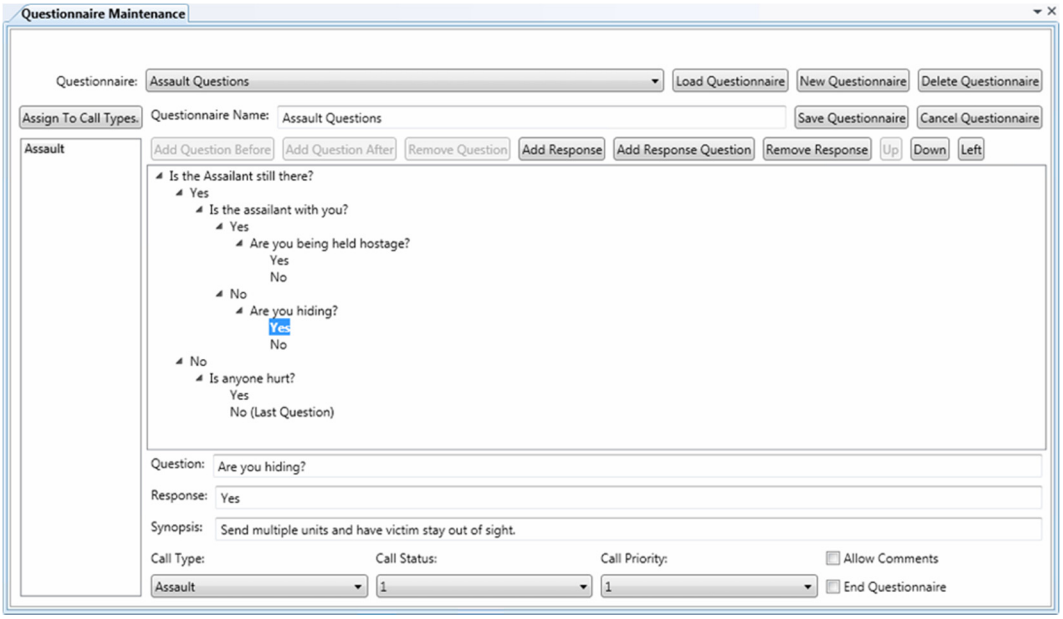


The Call Maintenance windows allows users to designate settings for call defaults, jurisdiction settings, call types, EMD codes, toning devices, scheduled tones, call priority, alert settings, custom views, custom view defaults, dispatch positions and service vehicle maintenance.

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.

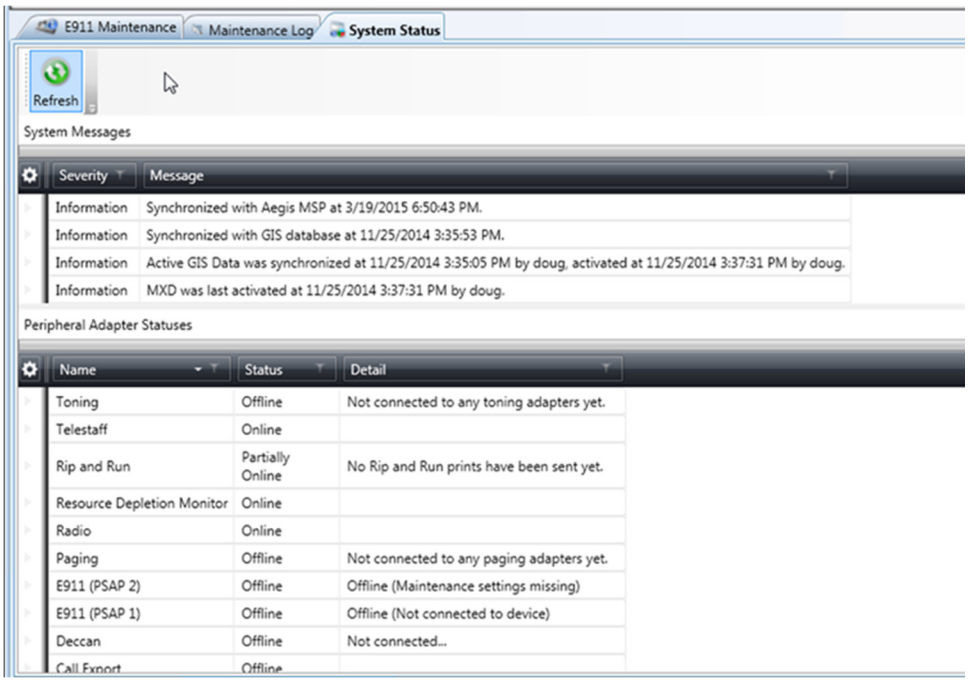


Standard Interfaces

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.



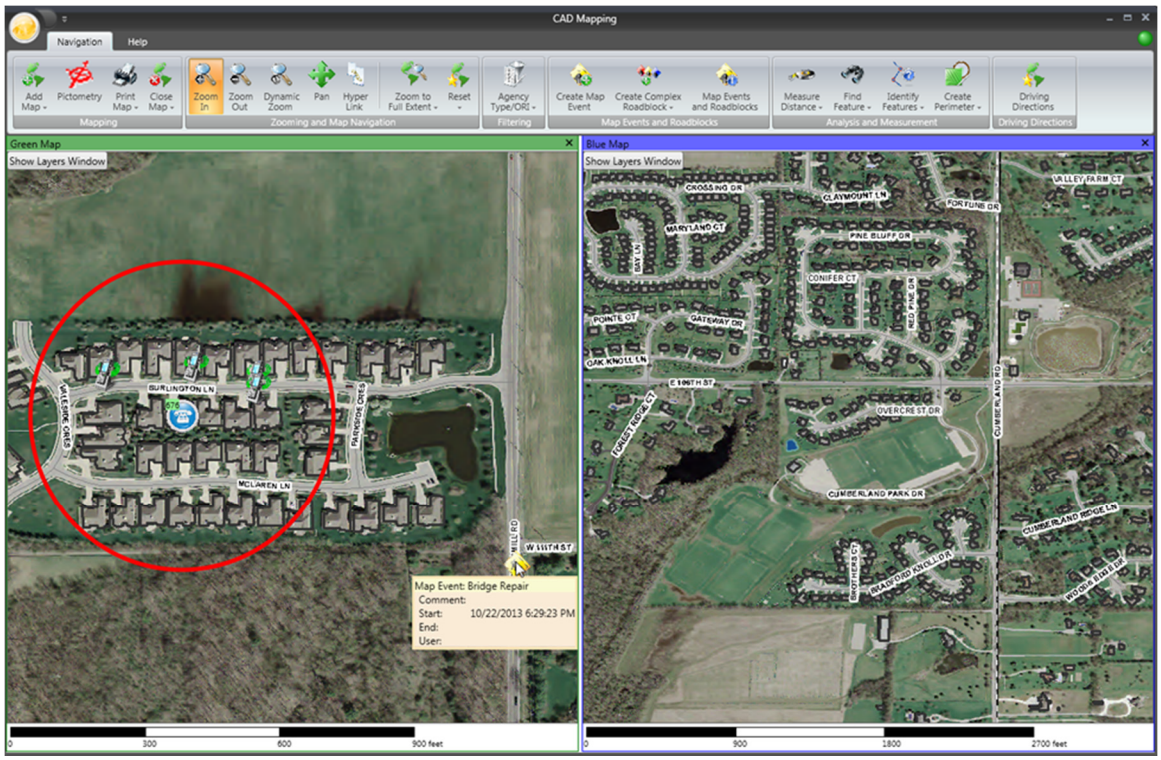
Maintenance Log

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.

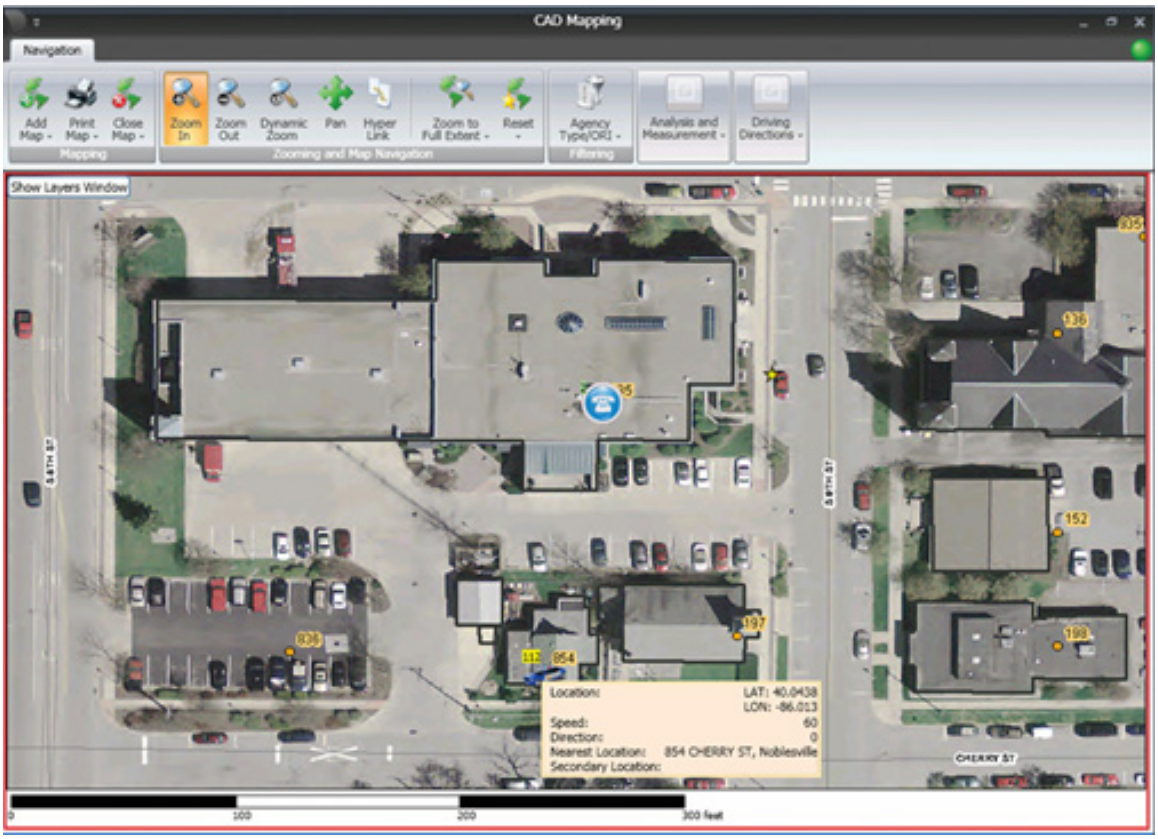


CAD Mapping showing a two-map view; the dispatcher has set a call perimeter in red on the left side while monitoring a wider area on the right.

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.

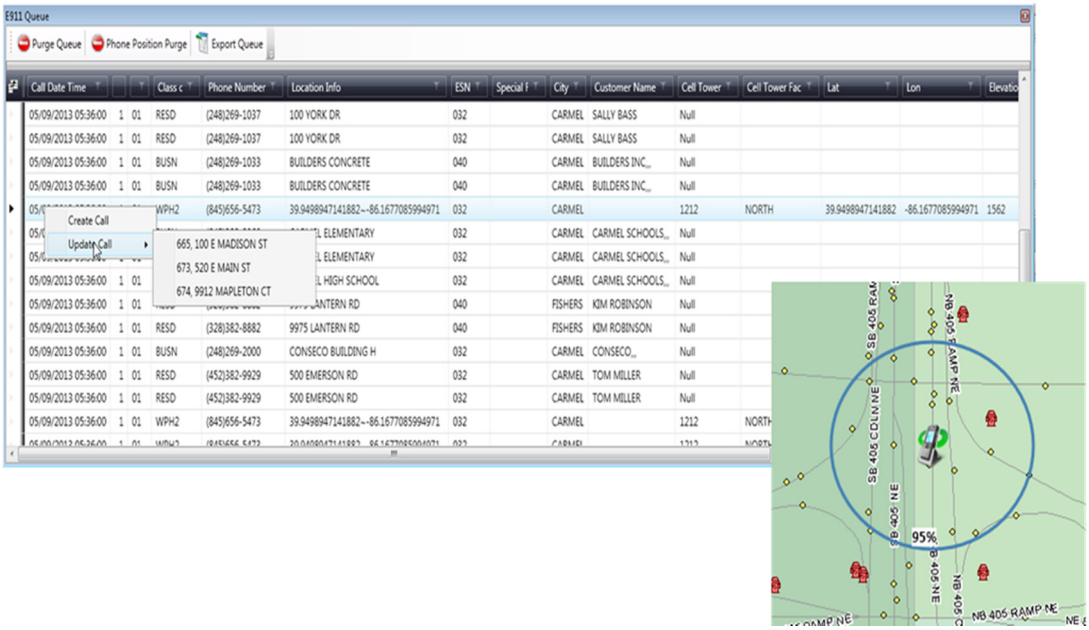
CAD Mapping – AVL unit showing latency bar.

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.

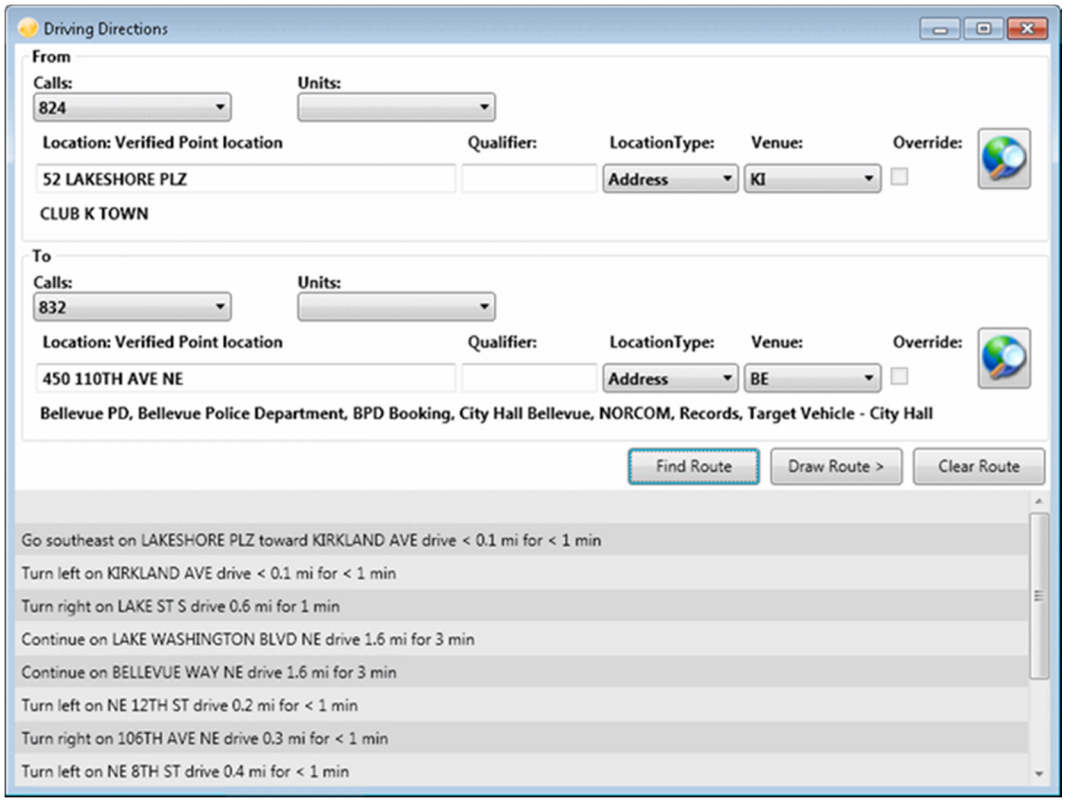


CAD Mapping window showing an E911 call location.

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.

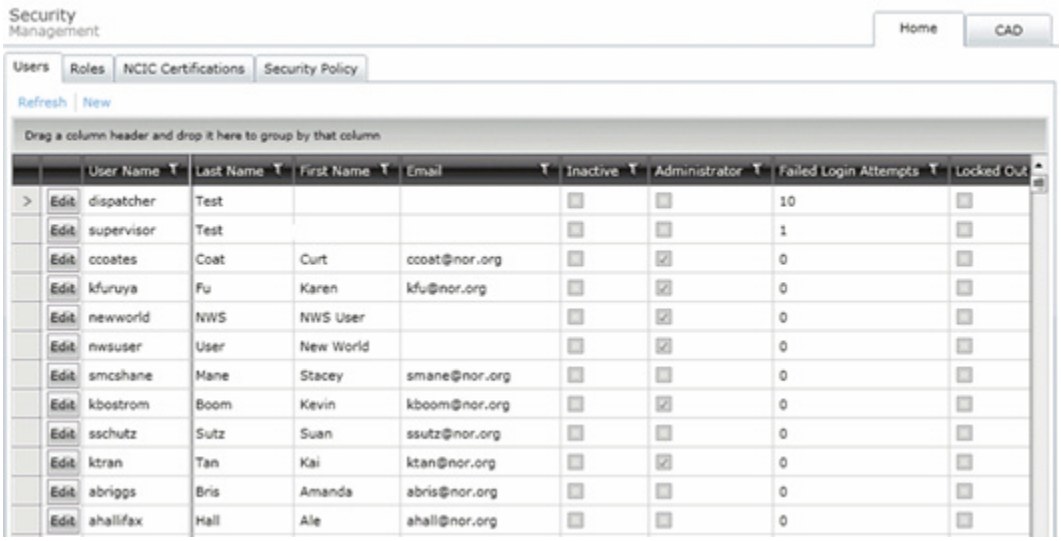
Application Security

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

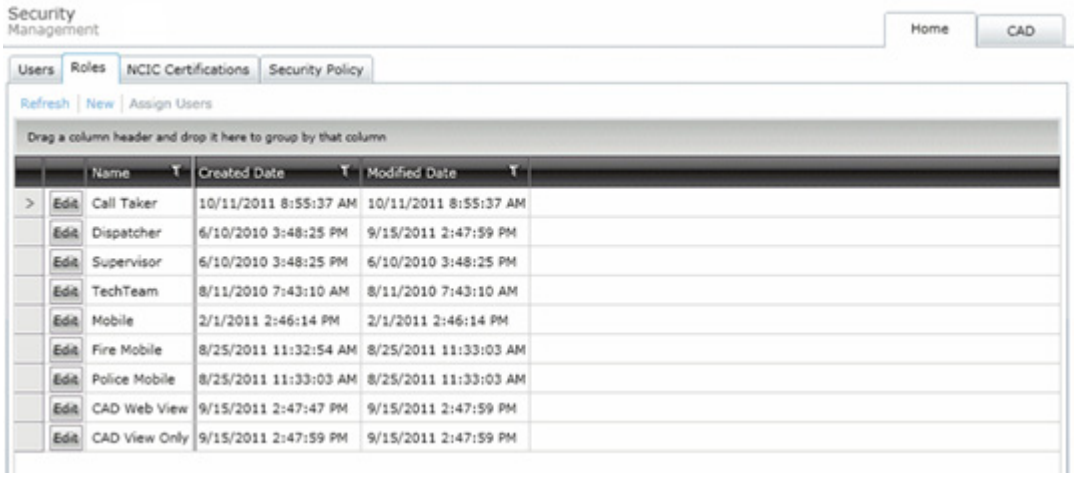
The Users sub-tab, which is the default view of the Home tab on the Security Management website, allows system administrators to add new users, edit or inactivate existing users, denote which users are administrators and set password parameters. They also have the ability to reset user passwords.



	User Name	Last Name	First Name	Email	Inactive	Administrator	Failed Login Attempts	Locked Out
Edit	dispatcher	Test					10	
Edit	supervisor	Test					1	
Edit	ccoates	Coat	Curt	ccoat@nor.org		✓	0	
Edit	kfuruya	Fu	Karen	kfu@nor.org		✓	0	
Edit	newworld	NWS	NWS User			✓	0	
Edit	nwsuser	User	New World			✓	0	
Edit	smcshane	Mane	Stacey	smane@nor.org			0	
Edit	kbostrom	Boom	Kevin	kboom@nor.org		✓	0	
Edit	sschutz	Sutz	Suan	ssutz@nor.org			0	
Edit	ktran	Tan	Kai	ktan@nor.org		✓	0	
Edit	abriggs	Bris	Amanda	abris@nor.org			0	
Edit	ahallifax	Hall	Ale	ahall@nor.org			0	

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.



	Name	Created Date	Modified Date
Edit	Call Taker	10/11/2011 8:55:37 AM	10/11/2011 8:55:37 AM
Edit	Dispatcher	6/10/2010 3:48:25 PM	9/15/2011 2:47:59 PM
Edit	Supervisor	6/10/2010 3:48:25 PM	6/10/2010 3:48:25 PM
Edit	TechTeam	8/11/2010 7:43:10 AM	8/11/2010 7:43:10 AM
Edit	Mobile	2/1/2011 2:46:14 PM	2/1/2011 2:46:14 PM
Edit	Fire Mobile	8/25/2011 11:32:54 AM	8/25/2011 11:33:03 AM
Edit	Police Mobile	8/25/2011 11:33:03 AM	8/25/2011 11:33:03 AM
Edit	CAD Web View	9/15/2011 2:47:47 PM	9/15/2011 2:47:59 PM
Edit	CAD View Only	9/15/2011 2:47:59 PM	9/15/2011 2:47:59 PM

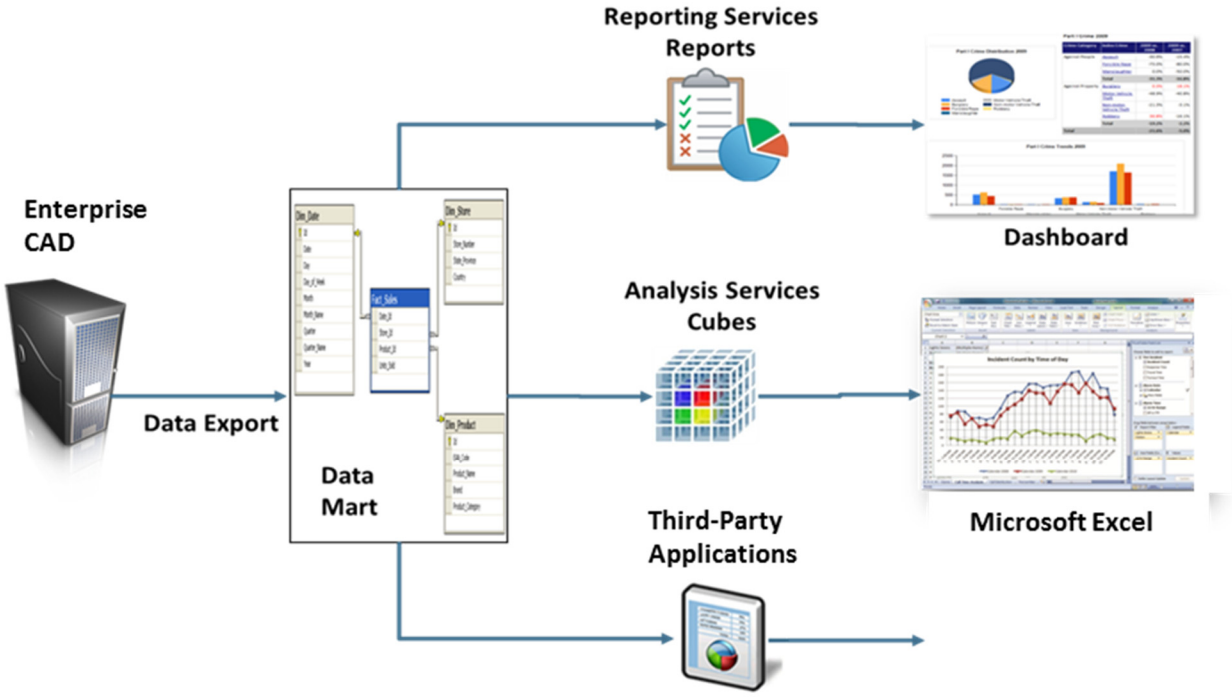
NG9-1-1

Tyler is taking a phased approach to NG9-1-1. Phase 1 will focus on enabling text-to-911 capabilities. Phase 2 will focus on enabling full NG9-1-1 capabilities, including support for multi-media services. Phase 3 will focus on fully embedded call control within CAD. With the completion of Phase 3, dispatchers and/or call takers will be able to initiate calls directly from the interface. Tyler will present all supported NG911 capabilities directly through the CAD application. Via CAD, call/text-takers will be able to accept incoming text-calls and support bidirectional communication directly with the text-caller. Tyler's New World CAD will push text conversations to the Mobile client. Text conversations will be pushed to Mobile clients upon call creation and unit assignment. As text conversations continue, CAD will send updates to the Mobile clients.

Reporting

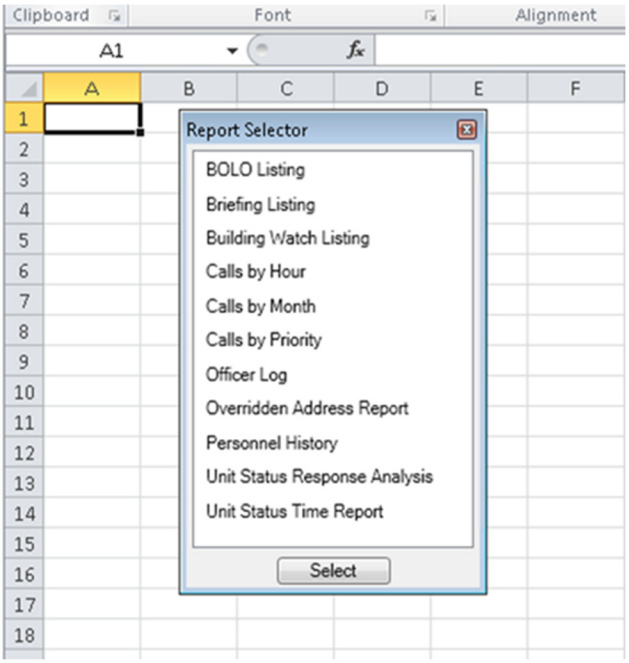
Standard Reports

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.

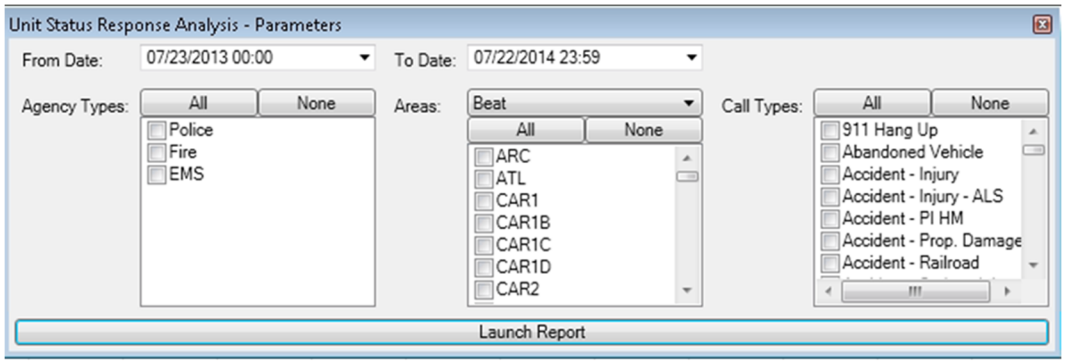


CAD Reporting Architecture Overview.

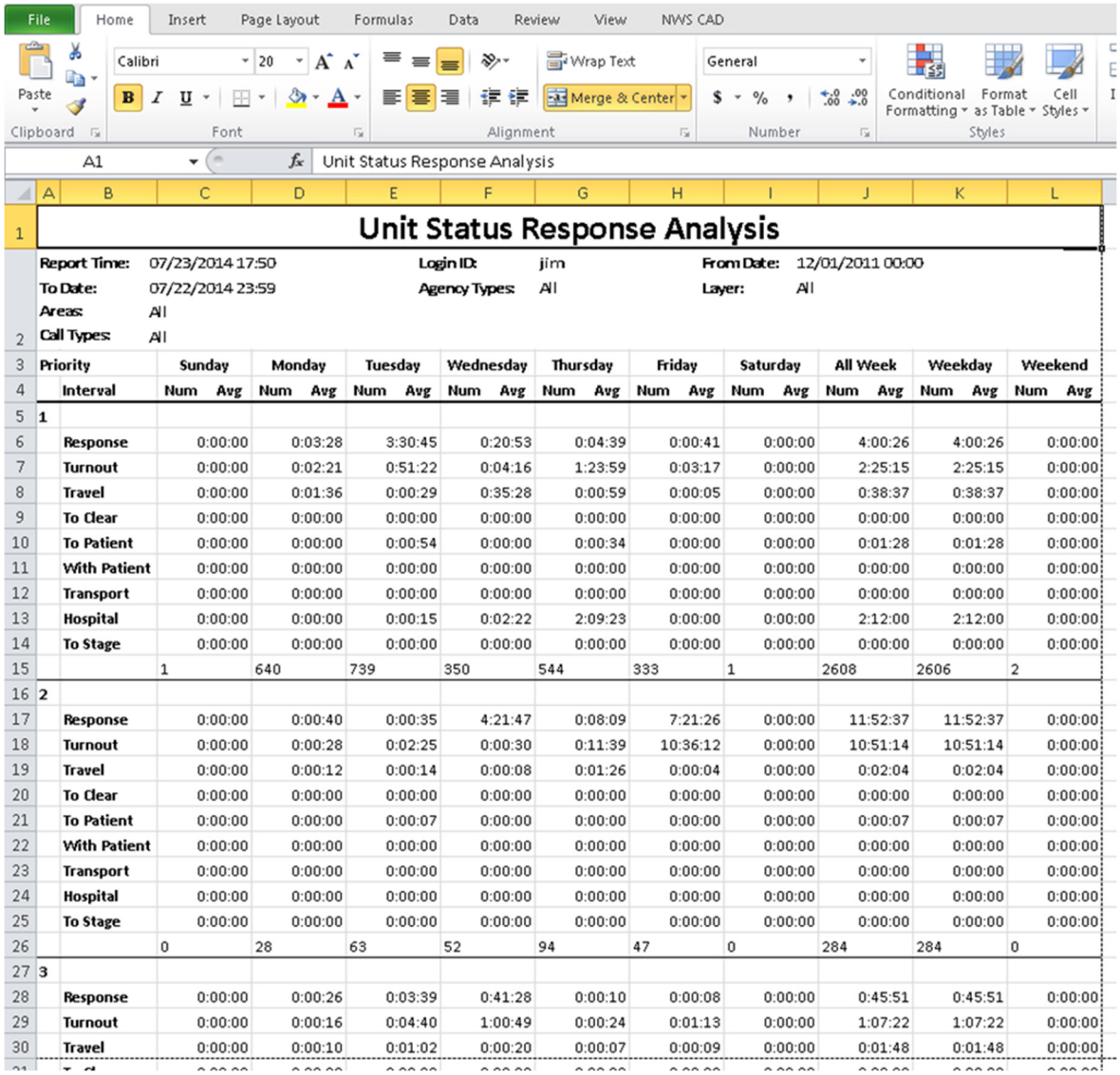
CAD Reporting also includes the SQL Server data cubes used for the standard reports. Microsoft Excel is used to connect to the existing data cubes, but any third-party application that supports SQL Server database connectivity could also be used. Additional data cubes can be added (if needed) using SQL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



CAD Report Selector.



Report Selection Parameters.



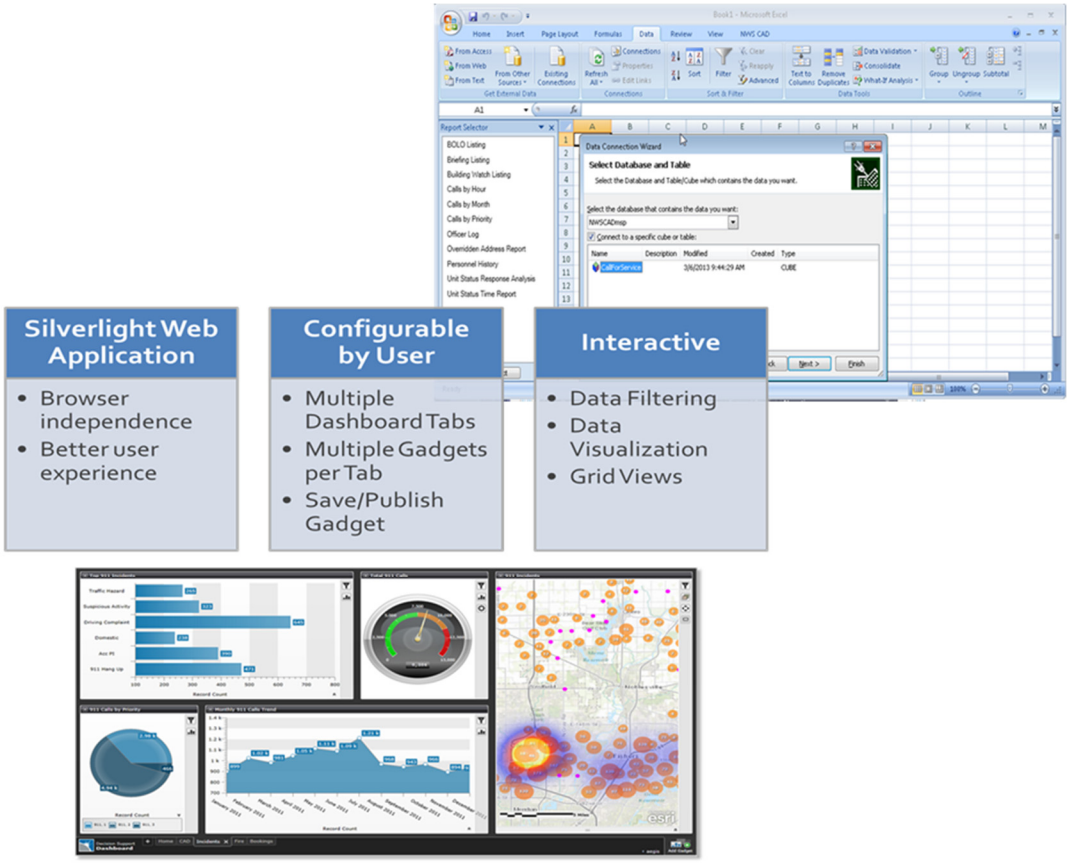
Unit Status Response Analysis

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		Sunday		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		All Week		Weekday		Weekend	
	Interval	Num	Avg	Num	Avg	Num	Avg	Num	Avg	Num	Avg	Num	Avg	Num	Avg	Num	Avg	Num	Avg	Num	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).

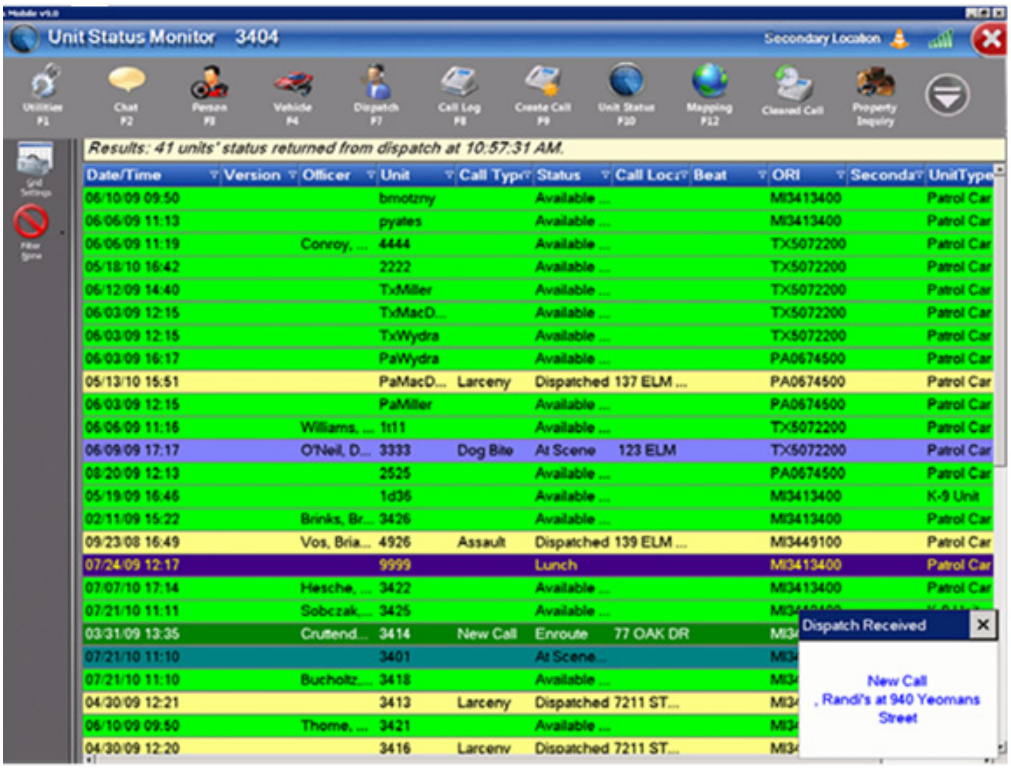


CAD Reporting – Dashboards, Gadgets and Excel.

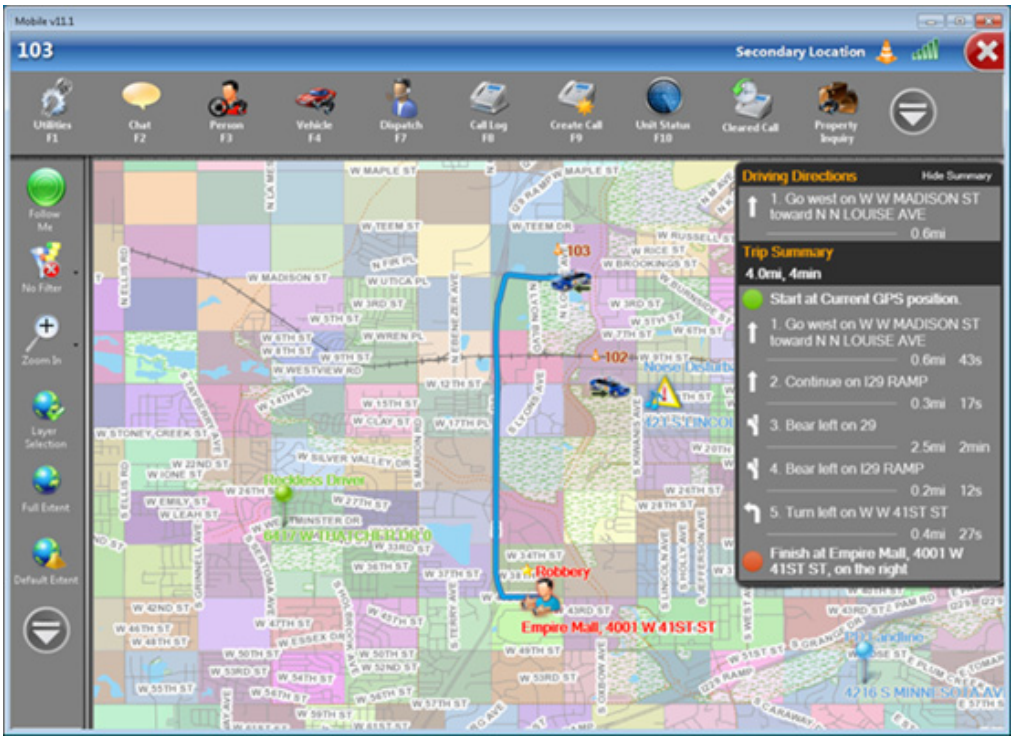
1.1.2 Message Switch and Mobile Data System

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.



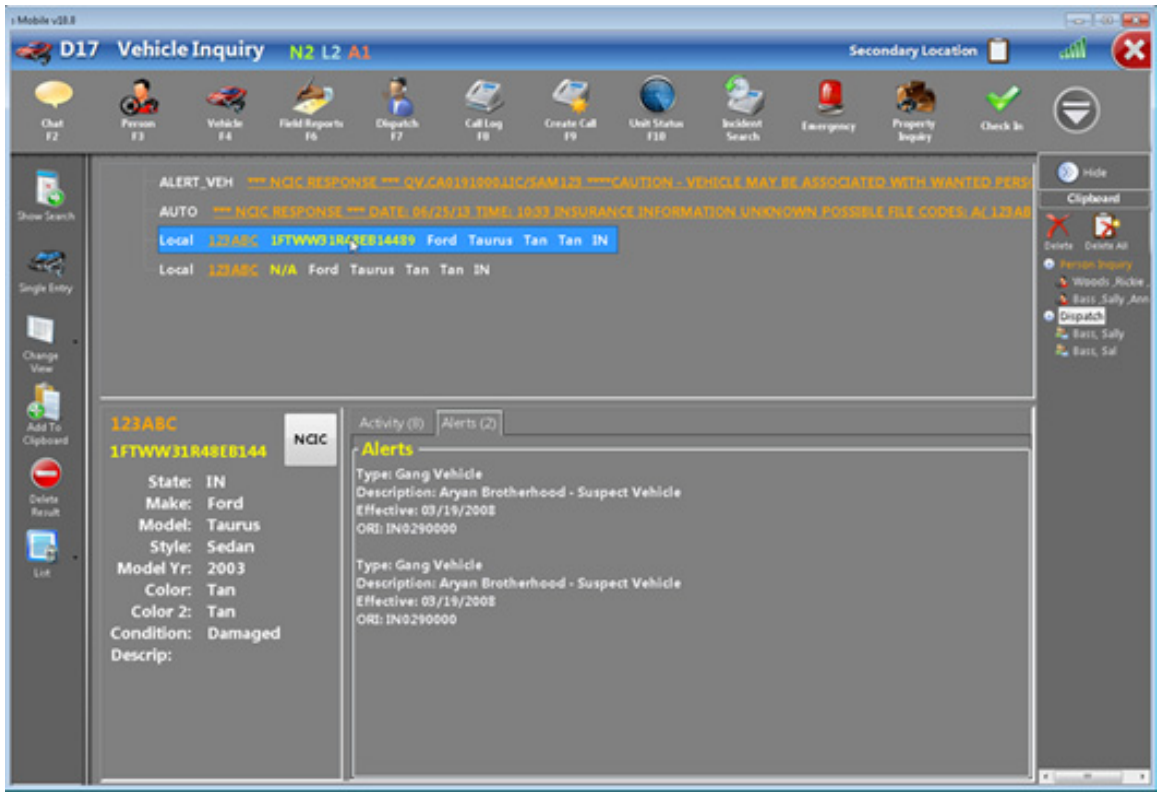
With Mobile Mapping, the dispatched location is plotted on the map and AVL-equipped units will see both their unit and the CFS. With the routing component, Mobile will display the route both graphically and using turn by turn directions.



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.

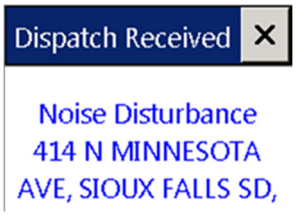


Vehicle Inquiry – Mobile parsing points out critical response information.

Functionality between CAD and Mobile includes:

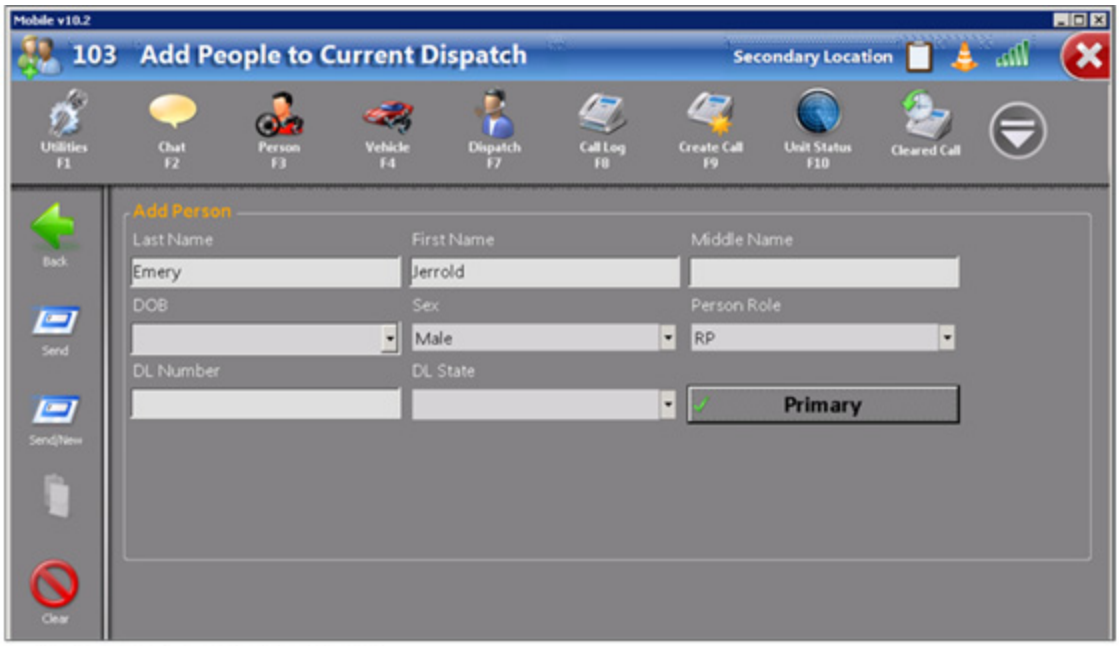
- Dispatch (dispatch screen)
- Self- Dispatch to pending or active calls
- Unit Status Monitor
- Alerts
- Chat/Messaging
- BOLOs
- Cleared Call Search
- Call Log (active and pending)
- Quick Call (officer-initiated activity)
- Preplans
- Emergency Button
- Person and Vehicle Inquiry
- Unit Check-In
-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

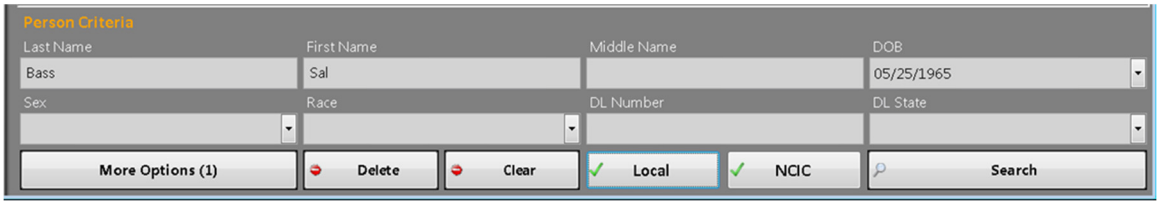


Mobile officers can add to the CFS.

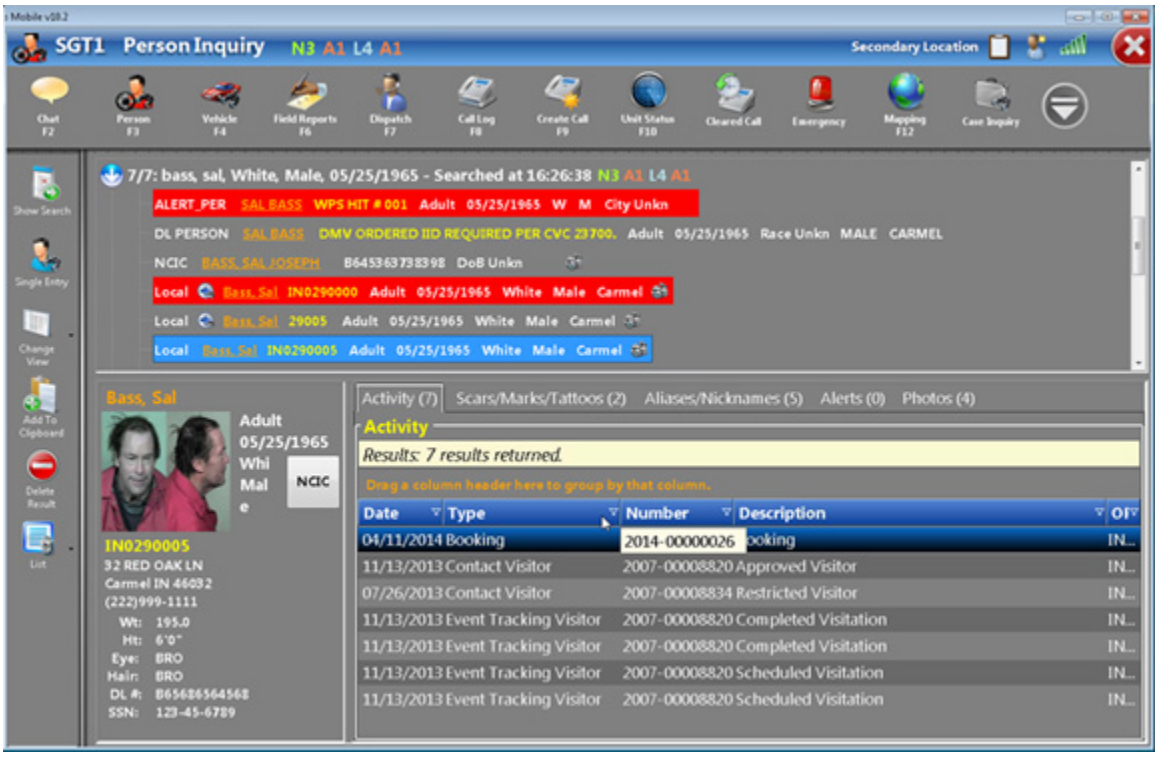
Add Person/Vehicle/Narrative:

- 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.



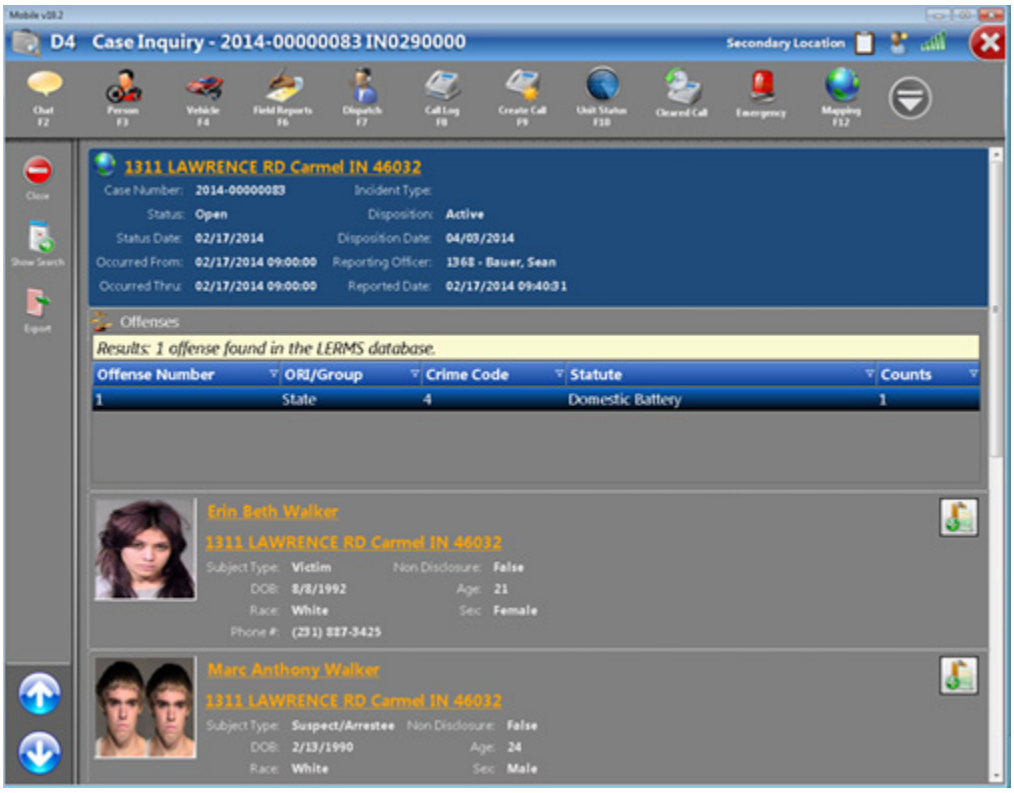
Mobile Subject Search.



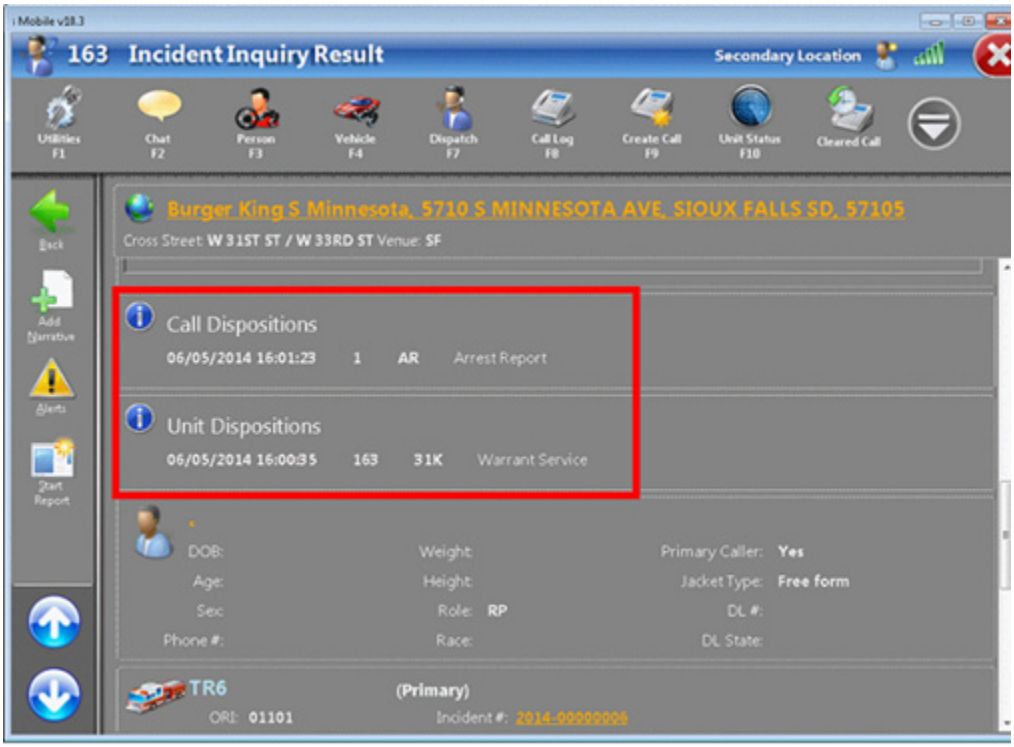
Person Inquiry with photo and multiple local records (parsing is being used to highlight critical responses in red).

Additional Mobile Inquiries (RMS/CMS) include:

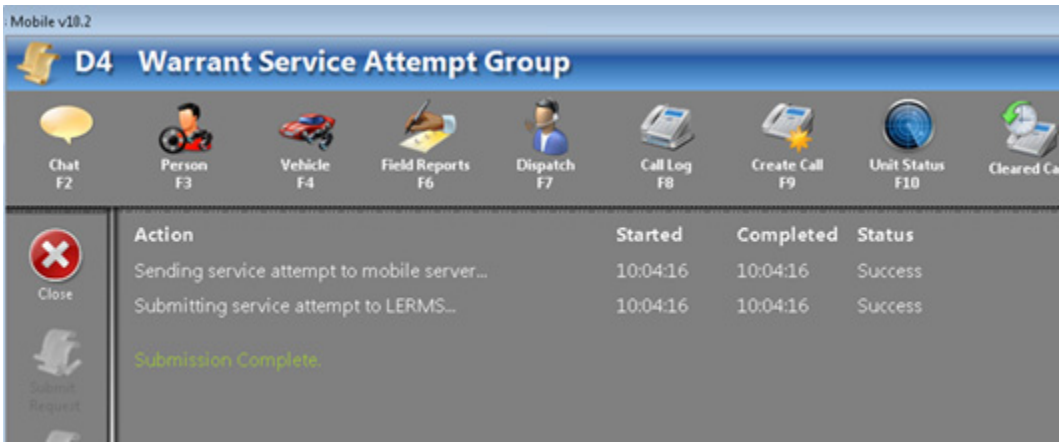
- Incidents
- Cases
- Wants and Warrants
- Warrant Service Entry
- Property
- Booking
- Unit Logs



Mobile Case Inquiry.

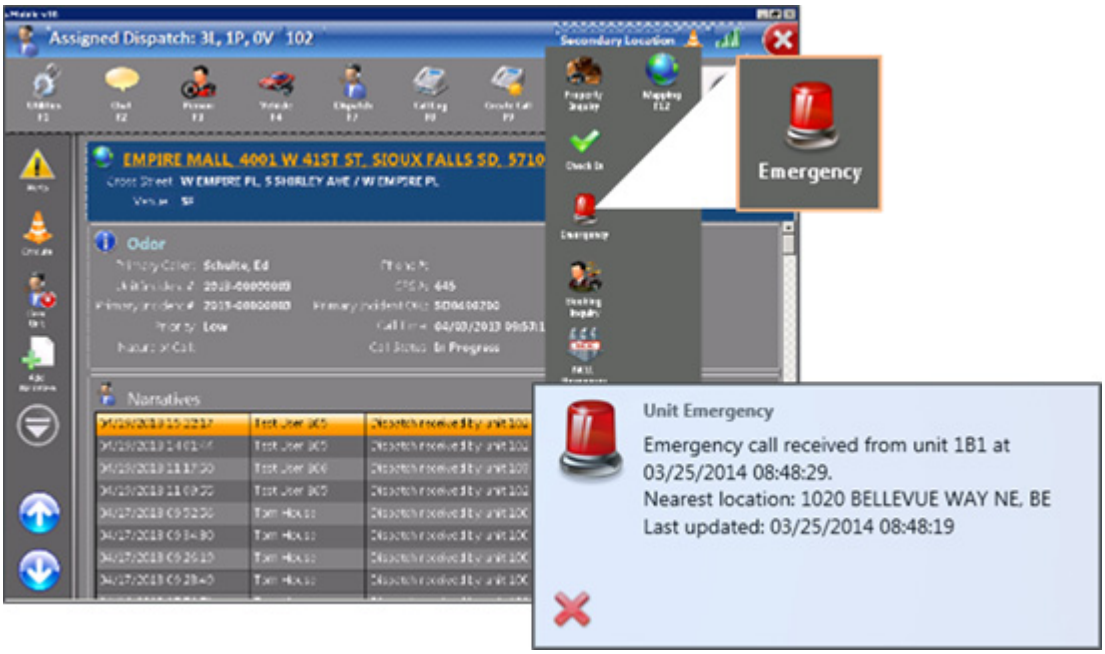


Mobile Incident Inquiry showing both Call and Unit dispositions.

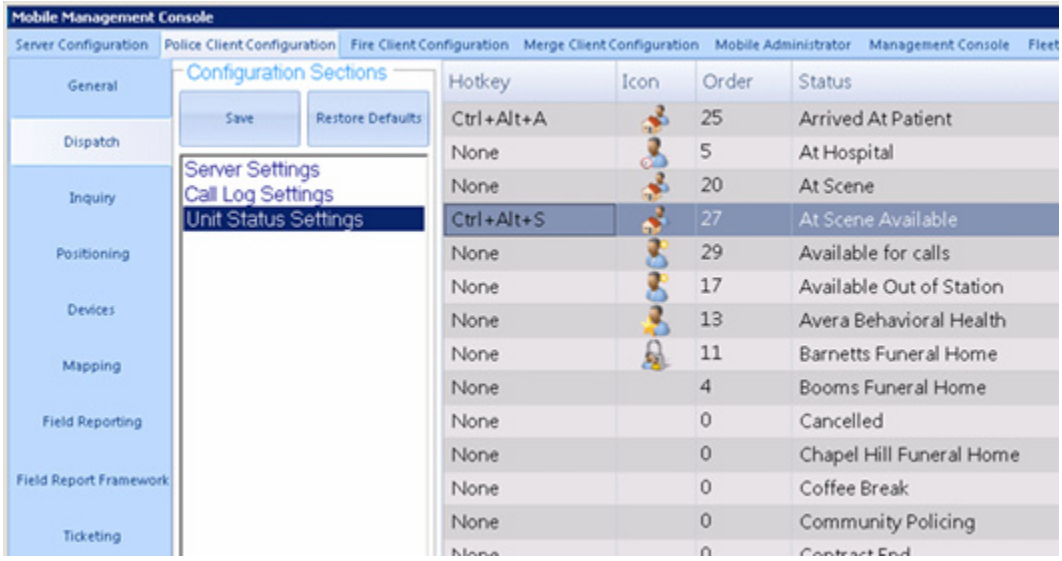


Updating Warrant Service from Mobile –RMS gets real-time updates that are available to all other users.

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.

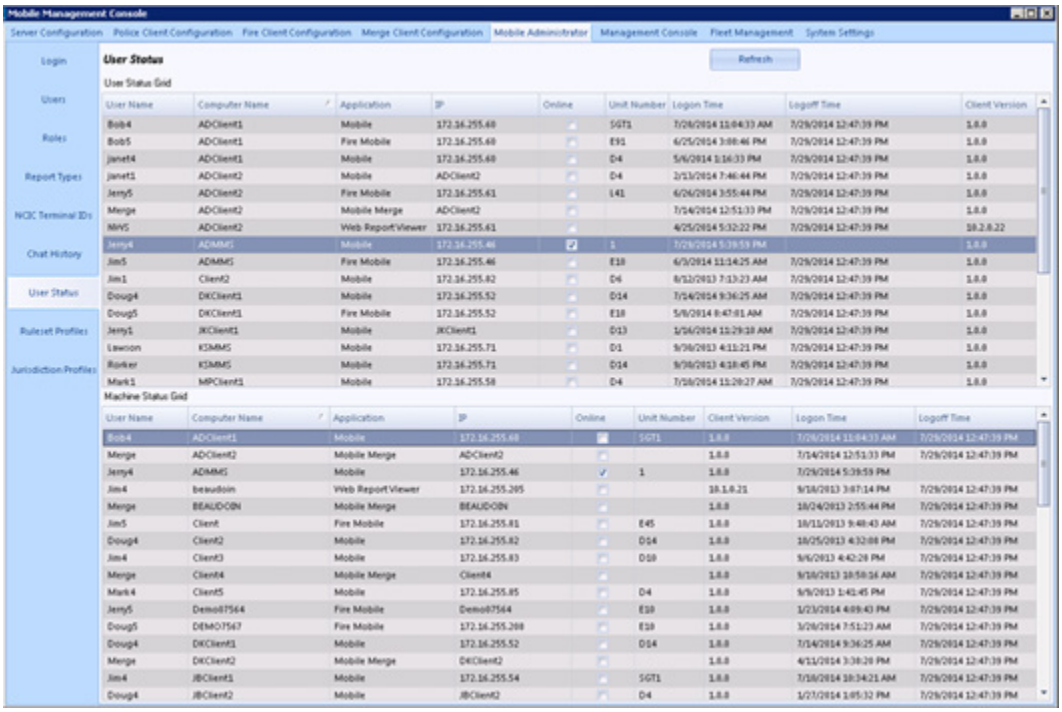


Mobile and Field-Based Reporting will pull all the appropriate settings and configuration needed from New World CAD and RMS. Call types, unit statuses, drop-down lists and mapping data are automatically managed by the Mobile server, keeping CAD and Mobile clients in synch.



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.

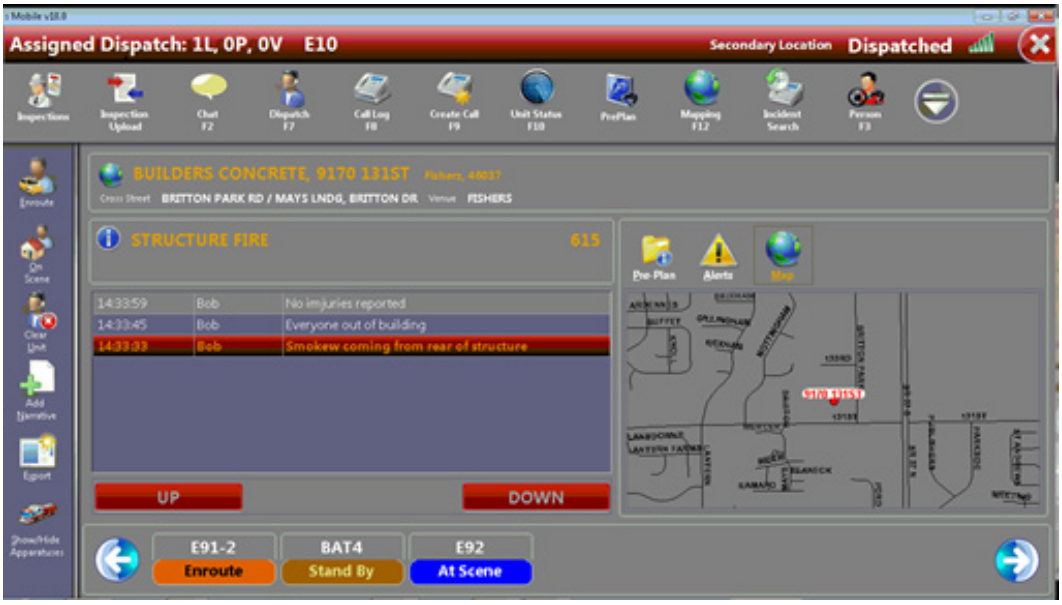


Mobile Fleet Status: Top Grid-User and last login. Bottom Grid-Machine and last user.

1.1.3 New World Fire Mobile

Tyler's Fire Mobile is a separate product built for the unique requirements of Fire and Emergency Medical Services (EMS). The Mobile applications are built using the latest Microsoft .NET architecture and are designed to operate in both a connected and disconnected mode. As part of the New World suite, the Fire applications share information with CAD and Law Enforcement, while enforcing the application permissions to keep Health Insurance Portability and Accountability Act (HIPAA) and other information restricted. The configuration settings in the application determine how and what information is shared across New World; typically Fire Service will maintain the business/building information that both CAD and Law Enforcement uses as part of Fire Inspection activity. All disciplines benefit from shared alerts and hazards and Fire Service can track activity and produce analytics independent of the other applications.

With New World CAD, Mobile users have a real-time unit status monitor. Mobile units receive dispatch information from CAD automatically and first responders have immediate access to the call information including the location and all potential alerts and hazards. The Alert button and Pre-Plan button are enabled and clearly indicate that more information exists. The user can simply tap the appropriate button for details, with navigation designed to support screen taps even with gloves.

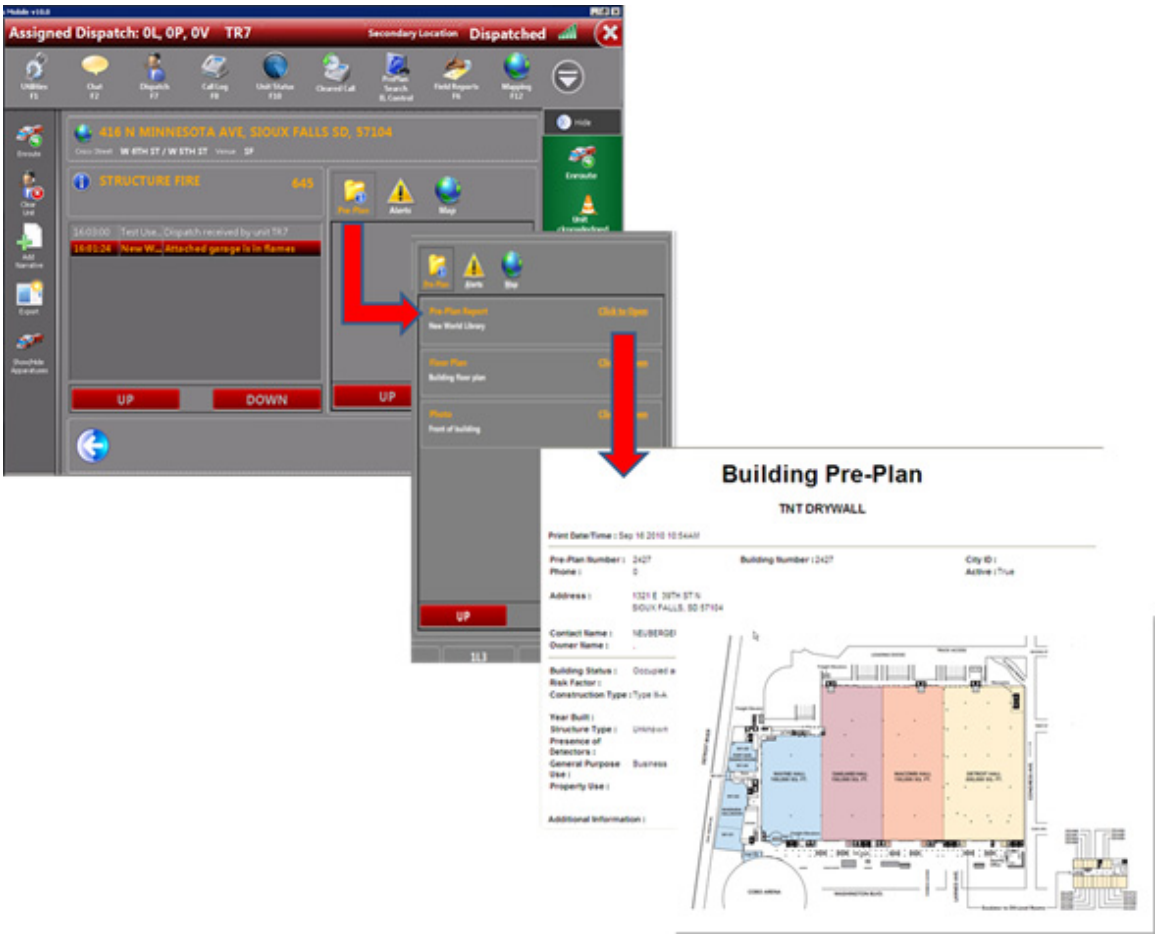


Initial Dispatch message from CAD.

Fire Mobile has access to emergency dispatch information; the ProQA summary is automatically sent to the apparatus, but not to other disciplines (HIPPA). CAD narratives can also be marked private.

Mobile notifications occur based on agency configuration. Notifications (dispatch, dispatch update, critical alerts, etc.) display in the bottom right corner of the screen without interrupting user entry or navigation. Users simply click on the notification window to view the details and remove the notification. Mobile users can message/chat with CAD, other mobile users and

groups. Fire Mobile users have one-click access to premise information and preplans from the dispatch message.



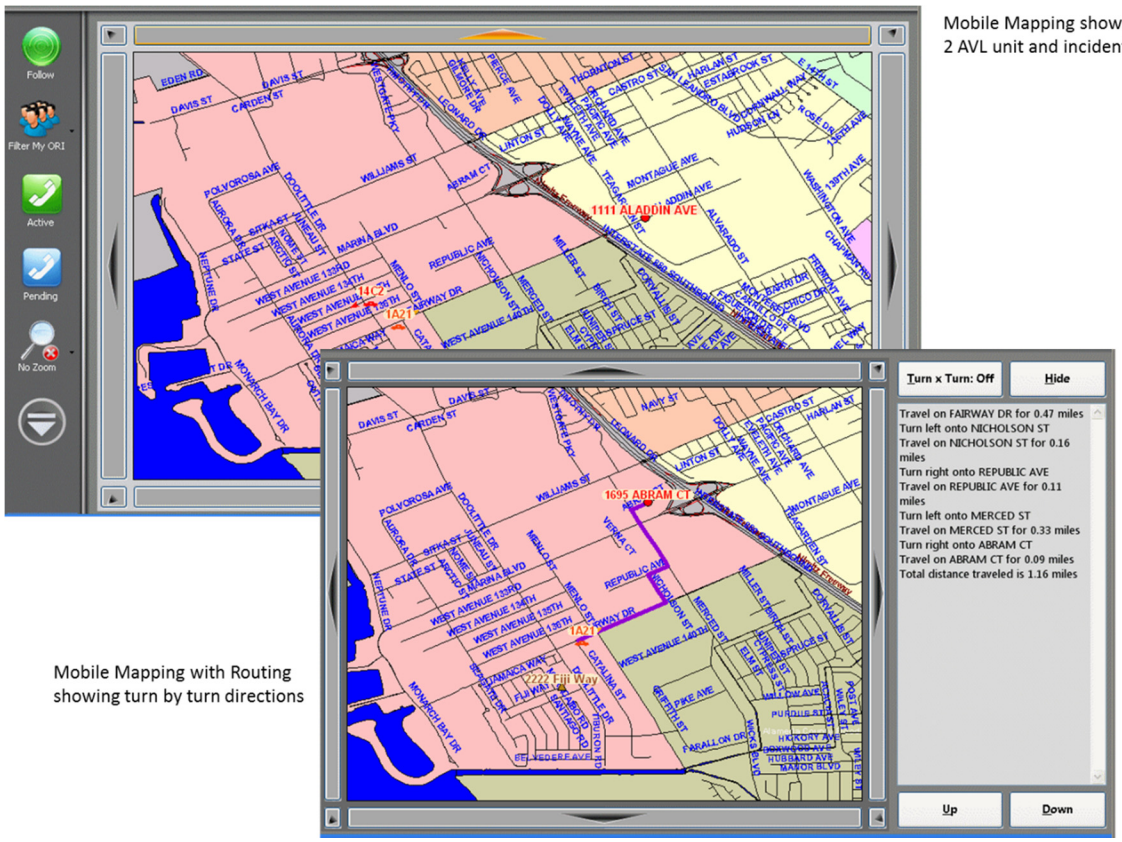
Fire Mobile Preplans – Managed automatically by the Mobile application to ensure quick access to floor plans, pictures and other critical information.

Mobile In-Car Mapping

Mobile In-Car Mapping displays the GIS information as part of the tightly integrated Fire Mobile client. The Mobile map will display all active and pending incidents. If a mobile unit is dispatched, the Mobile map will show that location. With AVL, the Mobile map will show that unit's location and a dispatch will automatically zoom the map to show both the unit and the dispatch location. Mobile mapping can also display the location of other AVL equipped units.

Mobile In-Car Routing

Used in conjunction with In-Car Mapping and the AVL components, the In-Car Routing module will display the route for any dispatch or entered location. This route is displayed both graphically and with turn by turn directions.



Mobile Mapping showing 2 AVL unit and incident

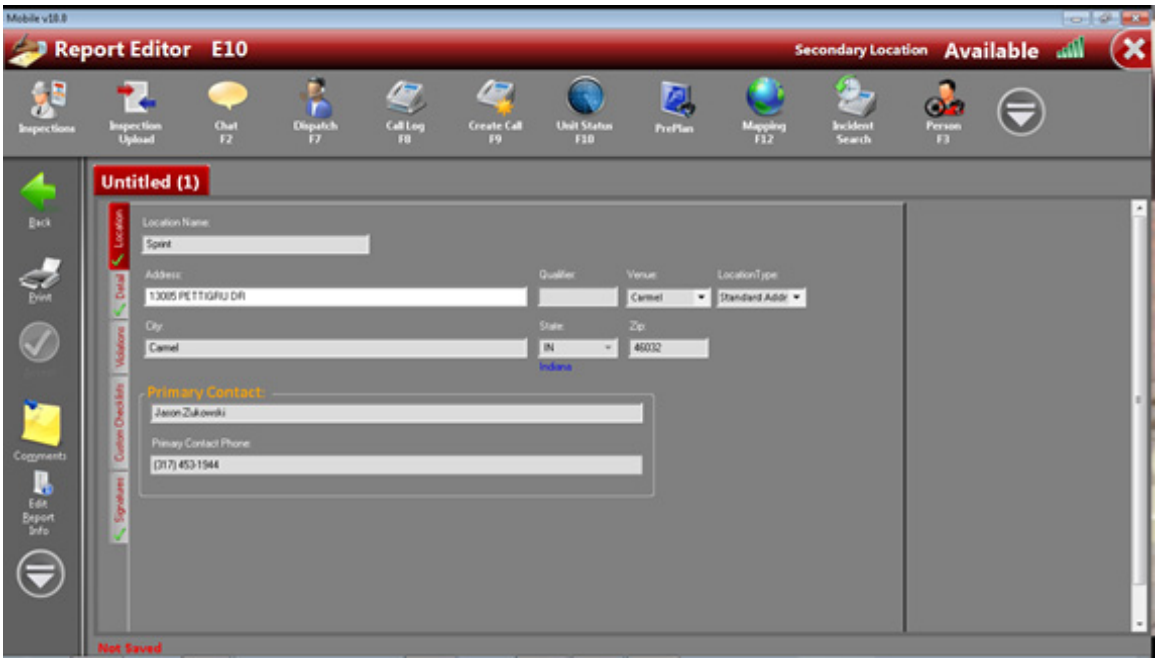
Mobile Mapping with Routing showing turn by turn directions

Mobile AVL

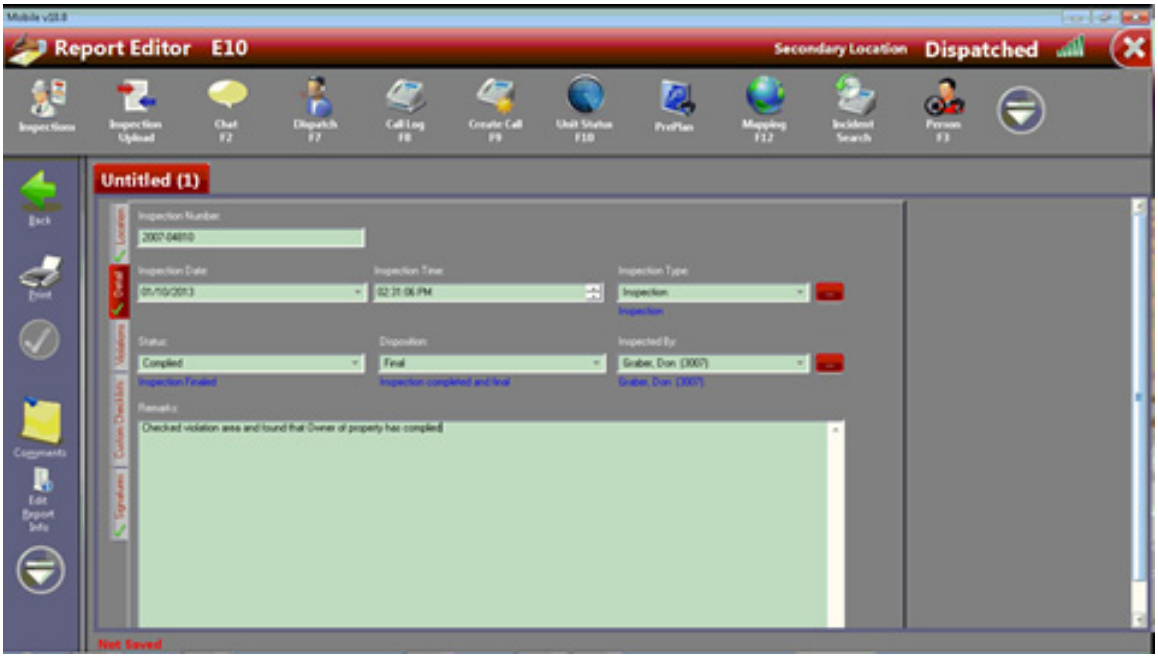
Fire AVL sends the GPS coordinates of any equipped fire unit to New World CAD and will display locally on the unit's Mobile map. The AVL unit transmits the unit's location, speed and direction for automatic mapping, tracking and dispatching purposes. The use of the AVL component greatly enhances dispatching and increases firefighter safety because dispatchers can visually identify the unit's location. AVL is required for proximity dispatching and for routing instructions.

Mobile Fire Inspections

Tyler's Mobile Fire Inspections works with Tyler's Fire RMS solution to enable full mobility of Fire Inspectors. The mobile client is designed to work on Windows tablets or laptops and imports Fire Inspection information from Fire RMS. The Fire Inspector can manage all assigned inspections and update Fire RMS in real time (if connected) or later depending on network availability and workflow. The Mobile Fire Inspections module is designed as a true Windows smart-client application. This means the software manages the data regardless of connectivity so the inspector can focus on the work at hand.



Fire Inspections - Initial screen.

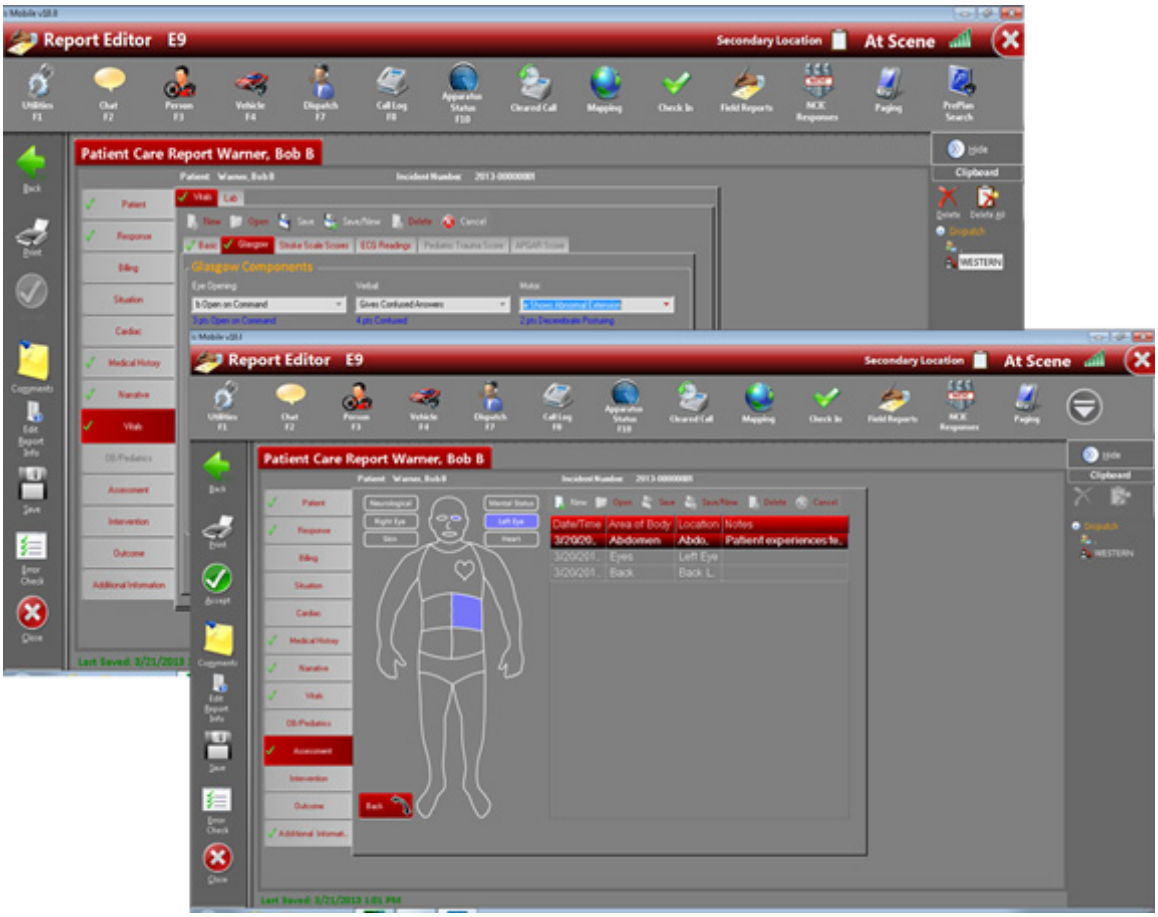


Fire Inspections – Details.

Fire Inspections – Signature scree (allows real time capture of signatures).

Mobile ePCR

Tyler's Mobile ePCR module is based on the NEMSIS Gold Standard. This module works with Tyler's Fire RMS to provide a seamless user experience for capturing patient and treatment details in the field. The application allows an agency to capture EMS patient care reports on a laptop or Windows tablet. Reports are uploaded over a network to the New World Field Reporting Server where they are merged with New World Fire RMS. Patient care information becomes part of the Fire incident (EMS tab) when complete.



EMS/ePCR screens (laptop or tablet).

1.2 Additional Product Information

Attached for your review is some additional information regarding the following Tyler products:

- New World Public Safety Software
- New World CAD Solutions
- New World Fire and EMS Solutions

new world™
a tyler public safety solution

Public Safety Solutions

Integrated Software for Public Safety

Empowering people who serve the public®

tyler technologies

Stable

Innovative

Focused

Reliable

Proven

The safe choice in public safety software

More than three decades of stability, innovation and public sector focus has made Tyler Technologies one of the most trusted public sector software companies in the market. More than 14,000 public sector organizations nationwide rely on our solutions to enhance service and create efficiencies.

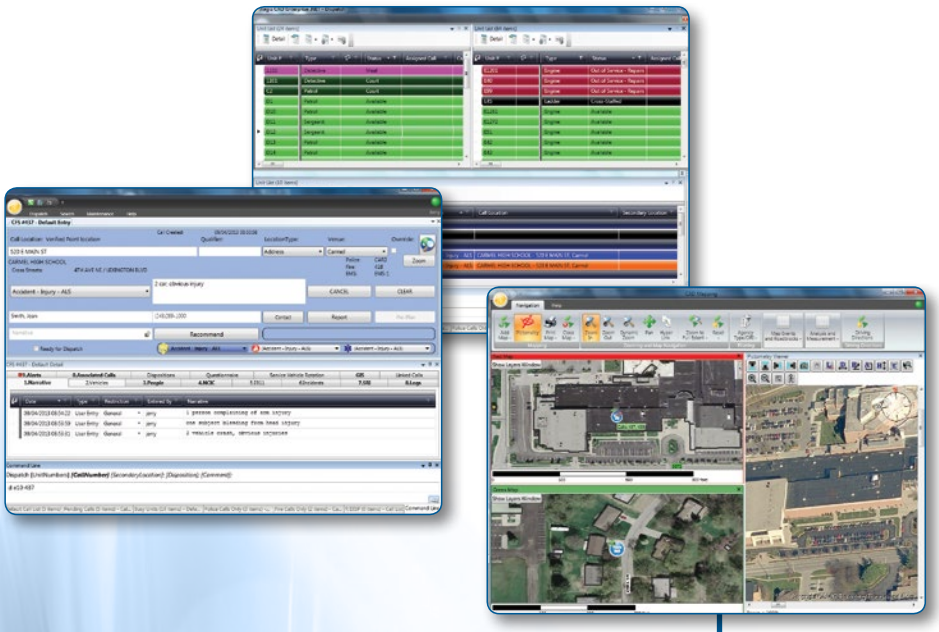
Full suite of end-to-end solutions

Built on current generation Microsoft® .NET technology, New World public safety software solutions offer unmatched application integration with easy maintenance and administration for years to come.

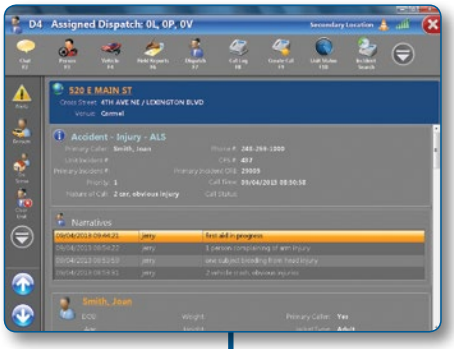
Unrivaled research and development investments keep software current

Tyler continues to invest millions of dollars in research and development and employs hundreds of software developers who work with agencies to continuously enhance the New World suite. This protects your long-term investment and ensures you're equipped with the latest advances in data sharing, mobility, intelligence, Next Generation 9-1-1 and future requirements.

Computer Aided Dispatch



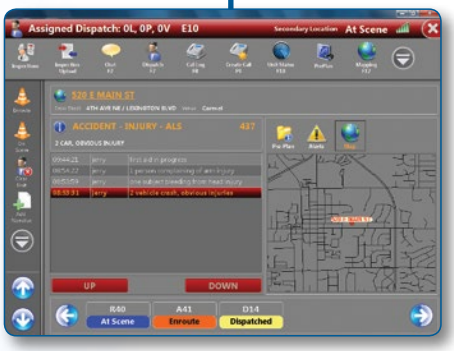
Law Enforcement Mobile Computing



Crime scene: Hit and run accident.

Witnesses call 911 using cell phones. Suspect, vehicle and location info is quickly captured by dispatch and seamlessly sent to police, fire and EMS responders.

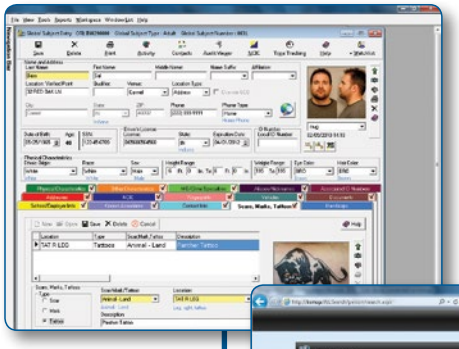
Responding police, fire and EMS access maps, suspect info, pre-plans and hazard info. Suspect is caught. Police use dispatch and inquiry info to auto-populate their report.



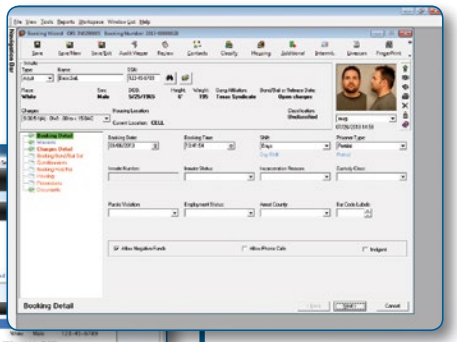
Fire/EMS Mobile Computing

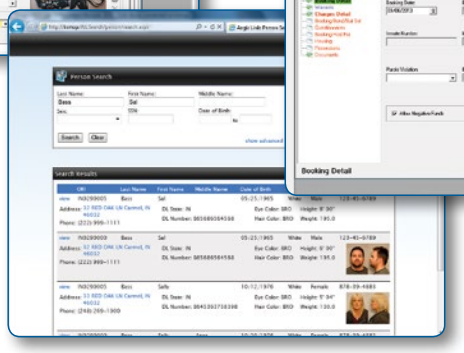
Integrated across departments and disciplines

Law Enforcement Records Management



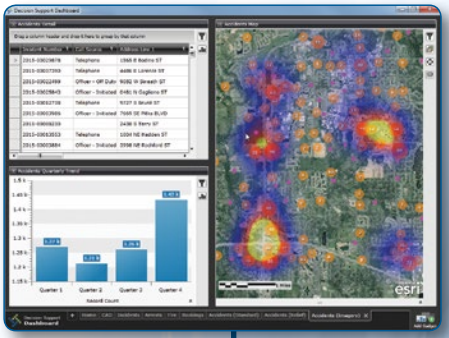
Corrections Management





Data Sharing

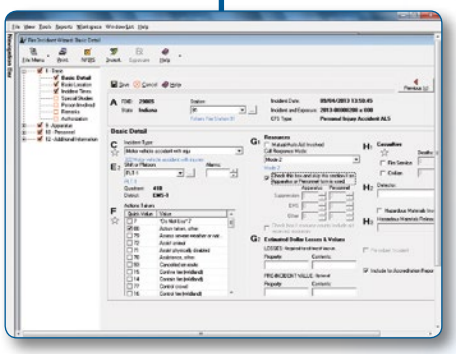
Decision Support and Dashboards



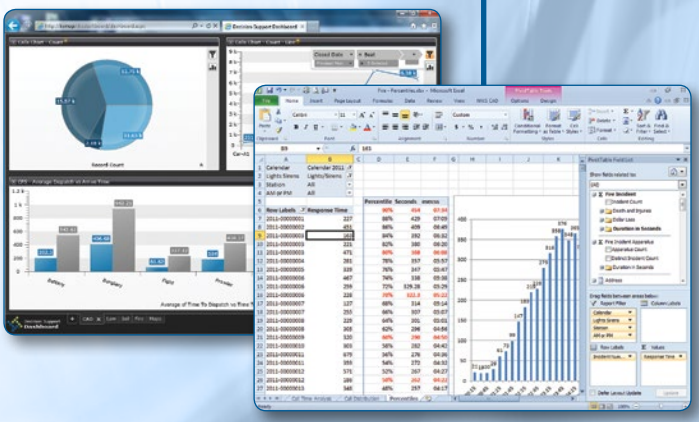
Investigators use robust search tools within Records Management to gather suspect info. Info from CAD pre-populates law enforcement and fire records.

Information is entered one time whether it's in Mobile Computing, Records Management or Corrections. Officers can pre-book in the mobile unit or use the Booking Wizard.

Incident info is used in CompStat dashboards to improve operations. Fire and EMS take advantage of analytical tools to monitor performance and perform interval reporting.



Fire Records Management



Dashboards and Analytics

Dispatch

New World Computer Aided Dispatch (CAD) gives call takers and dispatchers the information and tools necessary to make urgent decisions quickly. It's flexible and scalable for medium to large and consolidated dispatch centers.

New World CAD leverages the latest technology advances to prepare agencies for NG9-1-1 and future dispatch requirements. It is a reliable, easy-to-use solution that streamlines dispatching activities across all disciplines for law enforcement, fire and EMS.

Advantages

- Multi-jurisdictional functionality for law enforcement, fire and EMS
- Integrated Esri® and pictometry mapping
- Dynamic unit recommendations based on proximity and resources
- Multiple, configurable, full-featured command lines
- Ability to operate without a server connection
- Information sharing via CAD-to-CAD
- Continued GIS and CAD technology investments provide the framework for NG9-1-1

Improve First Responder Safety and Decrease Response Times

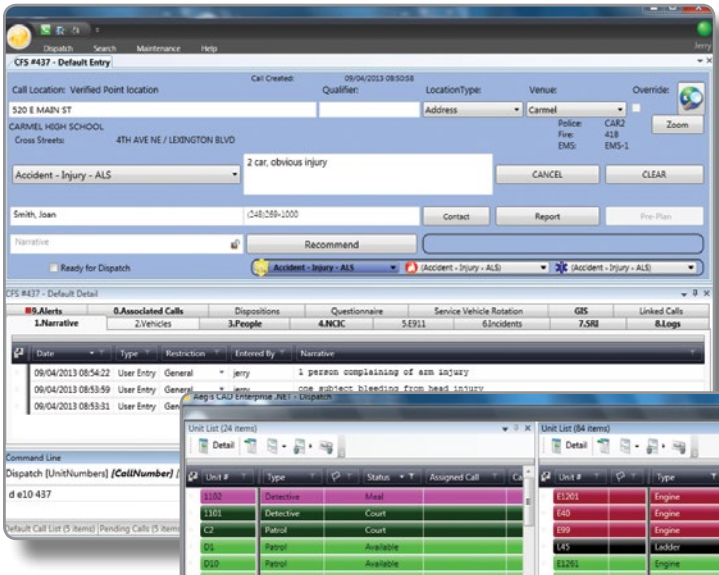
Dispatchers can quickly send the most appropriate response by leveraging features and information including:

- Automatic address verification
- Proximity dispatching using real-time GPS unit locations
- Dynamic unit recommendations
- E-911 and Phase II wireless call support
- Access to pre-plans, hazards, wants and warrants, alerts and critical information

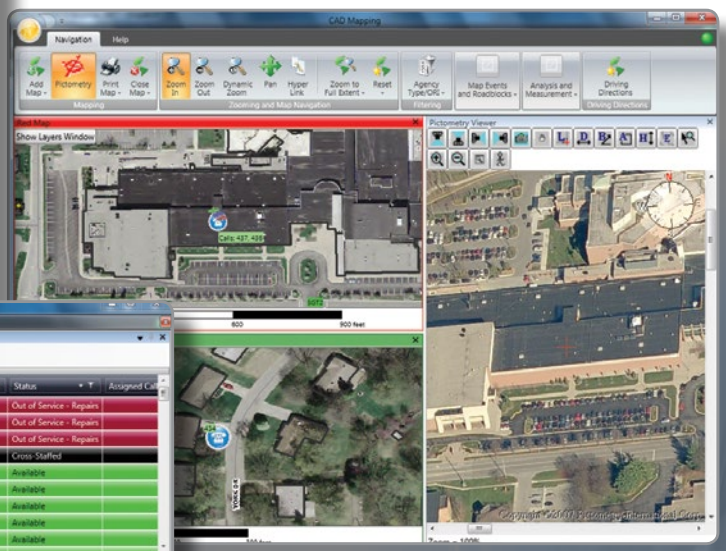
Seamlessly integrated with Records Management, Fire Records Management, Corrections and Mobile, and interfaced with NCIC, New World CAD provides a wealth of information to keep dispatchers informed and first responders prepared.

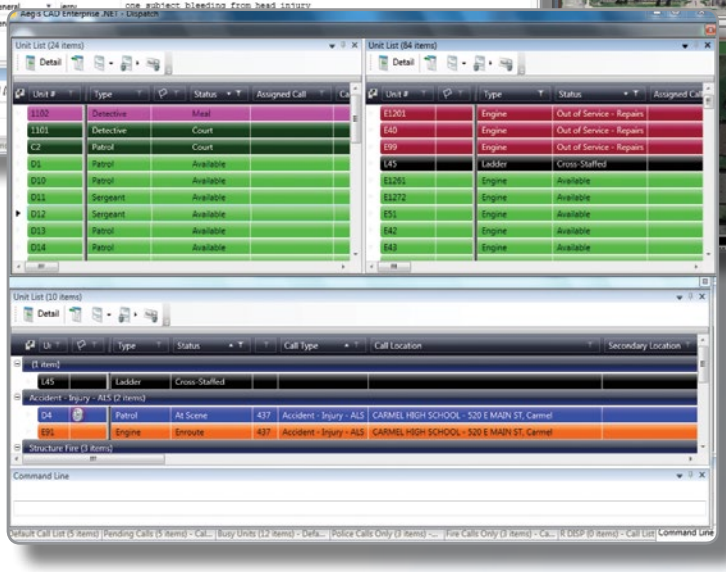
Software that responds.

Call Control Screen



Interactive Map





Unit Status Monitor

Designed to Maximize Productivity and Minimize Effort

Easy-to-use New World CAD provides users with a familiar Microsoft® Windows® environment along with command-line entry, drag-and-drop dispatch, a fully integrated map and is configurable to agency-specific needs. It provides access to the exact information and functions each call taker and dispatcher needs when every second counts.

More Location Information Enhances Situational Awareness

The latest Esri technology embedded in New World CAD provides geographical analysis and visual reference to dispatchers and field personnel through high-performing, easy-to-maintain maps. They contain a wealth of information with the ability to track and monitor all units, improving preparedness.

Enhanced Collaboration and Communication

New World CAD improves communication between dispatch and first responders, enabling silent dispatching and less reliance on radio use. Combined with New World CAD Web View, it also keeps command staff informed with Web-based, real-time information. New World CAD-to-CAD functionality enhances mutual aid and multi-jurisdictional response by providing dispatch centers with the ability to share call information.

Records

New World Records Management helps agencies effectively use the vast amount of information they collect every day. A proven solution in use at hundreds of agencies across the country, New World Records Management is configurable to support individual agency operations. Completely integrated with the New World suite of applications, it streamlines the process of collecting, storing and providing mission-critical intelligence.

Advantages

- Powerful tools for crime analysis, mapping and ad hoc reporting
- Automated case management with proactive email notifications
- Robust mobile field-based reporting
- Automatic NCIC/state updates and queries
- Integrated state and federal crime (IBR/UCR) reporting
- Secure information sharing between departments and agencies
- More than 30 integrated modules eliminate stand-alone systems

Complete Multi-Jurisdictional Record Keeping

New World Records Management provides a wealth of tightly integrated modules that support agency needs including investigations, gang tracking, permits, training, narcotics, evidence and more. It's flexible, secure and easy to use for both single agencies or multi-agency consolidations.

Bring Information Together and Automate Investigations

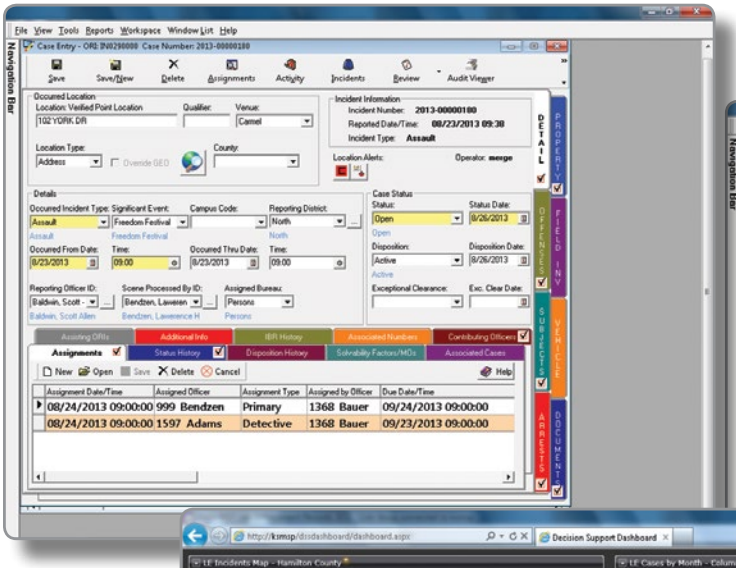
New World Records Management automates investigations with unmatched application integration and case workflow capabilities. Investigators have access to all associated information, robust search capabilities and advanced tools, such as photo lineups and crime maps.

Save Time and Easily Meet Reporting Requirements

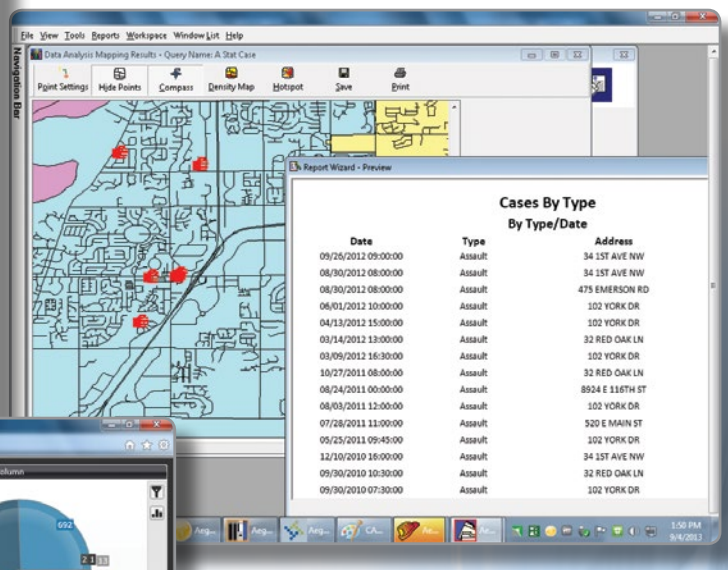
By automating IBR & UCR state and federal reporting, New World Records Management reduces data entry. Accuracy and availability is maintained with built-in workflow that pulls information from mobile field reports and dispatch. It offers three levels of easy-to-use reporting features including hundreds of standard reports, real-time analysis through Data Analysis and Mapping, and the ability to analyze, trend and report on information using Decision Support and Dashboards. These features allow agencies to analyze data to predict and solve crimes.

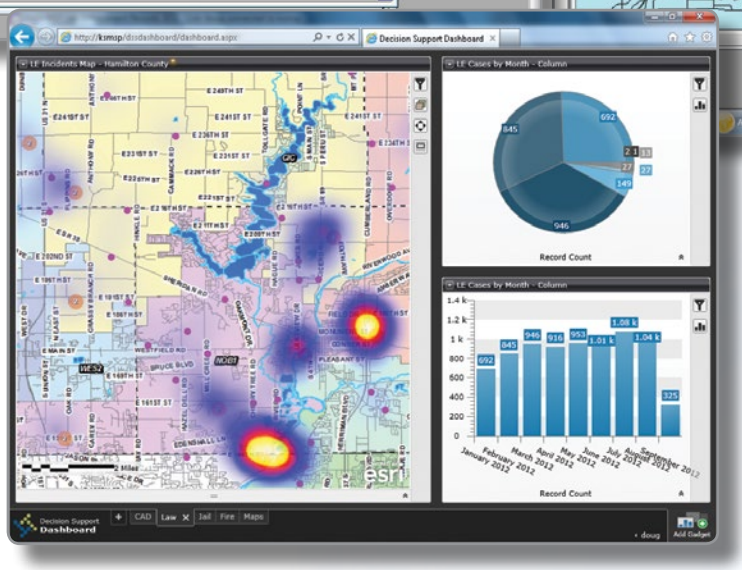
Software that reports.

Case Report



Data Analysis and Mapping





Dashboard

Information for Efficient Command and Control

Command staff and supervisors have immediate access to everything needed to monitor agency operations, evaluate effectiveness and enhance decision making. New World Decision Support role-based dashboards provide command staff with immediate access to agency activity and statistics from Records Management. Built-in email notifications, advanced workflow and accreditation tools help reduce risk and ensure policies and procedures are always followed.

True Information Sharing

New World Records Management enables secure information sharing between departments, multiple public safety agencies, and state and regional programs. Combined with New World Link Web portals and state-of-the-art interoperability tools, it improves communication during mutual aid responses and enables agencies to share information on a person, vehicle or property.

Mobile

New World Mobile Computing provides vital communication and intelligence that improves performance, safety and preparedness in the field. It keeps first responders informed when arriving on scene and ensures field personnel are as efficient as possible, while remaining a visible presence in the community.

Advantages

- Designed for easy use on a laptop or Windows tablet
- Real-time clear and concise dispatch information
- Feature-rich mapping
- Time-saving field-based reporting workflow and agency-defined electronic approvals
- Reporting without interruption whether operating in connected or disconnected mode
- Electronic pre-booking capabilities increase efficiency

Information at Your Fingertips to Improve Decision Making

Providing vital intelligence to field personnel through a seamless flow of information from CAD, Law Enforcement Records, Fire Records, Corrections Management, NCIC and maps keeps vital information readily available for decision making. Embedded Esri mapping and Automatic Vehicle Location (AVL) capabilities provide up-to-the-minute views of all activity, including unit and incident locations and turn-by-turn driving directions.

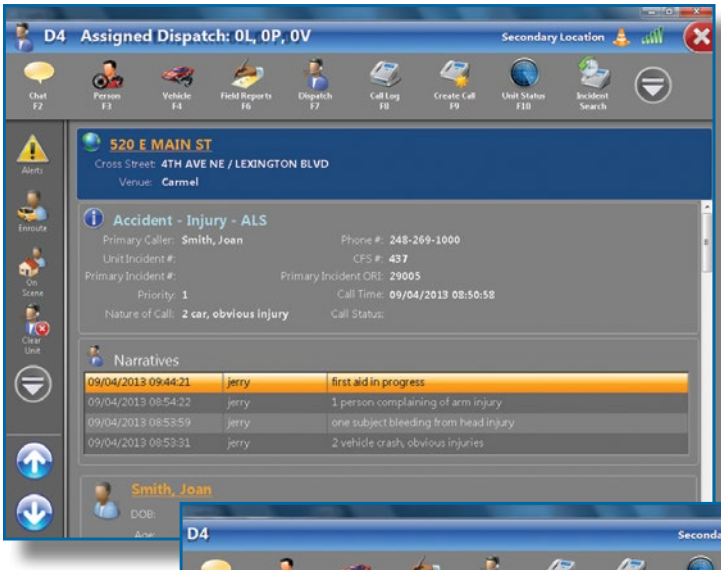
New World Mobile Computing organizes and presents information from inquiries to be viewed quickly and allows users to easily drill down into more detail. At a glance, supervisors can make informed decisions about deploying resources, and field personnel have the tools to spend more time safely patrolling the streets.

Improve Communication and Collaboration in the Field

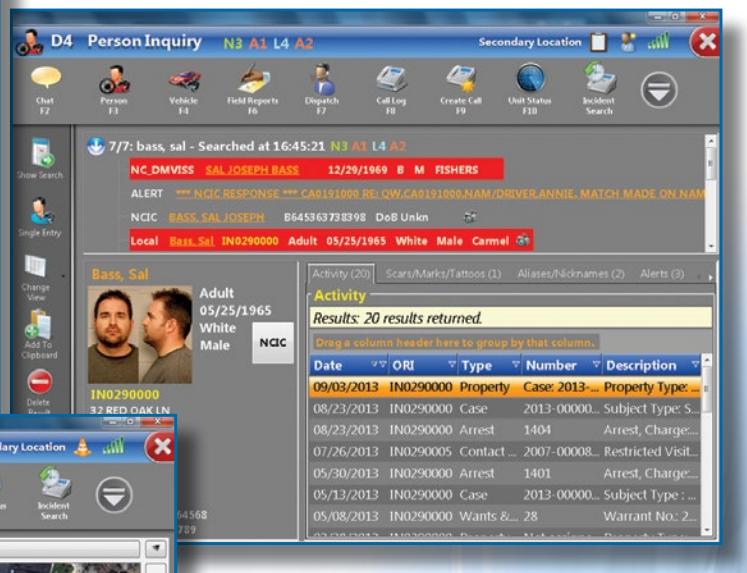
New World Mobile Computing enhances data sharing and situational awareness in the field. Everyone stays connected and can share information through messaging, silent dispatching and access to unit status monitors. This provides officers with fast and intelligent access to multiple shared data sources.

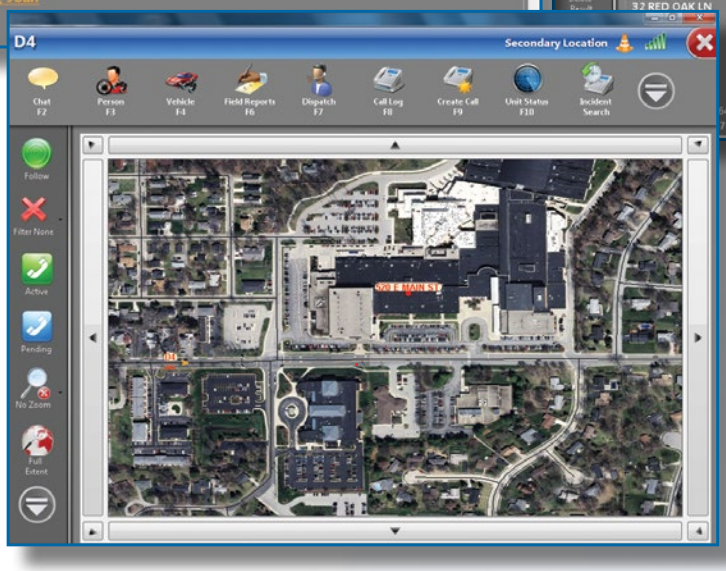
Software that increases safety.

Call for Service



Person Query





Automatic Vehicle Location (AVL)

Easy to Use and Maintain

The current technology behind New World Mobile Computing provides easy and familiar Windows navigation. It also simplifies use for officers in the field with the ability to save agency-defined, role-based security profiles. The proven and stable infrastructure eases administration, allowing software updates to be distributed without having to physically install the software on each mobile unit.

Save Time and Streamline Field Reporting

New World Mobile Computing offers unmatched paperless workflow that improves reporting efficiency. It's proven to save a significant amount of time as it easily guides officers from dispatch to electronic field report submission, an agency-defined approval process and seamless merge into Records Management. It's configurable by agency, making it easy to quickly and accurately collect the information required for agency, state and federal reporting. New World Mobile Computing saves time for users by auto-populating information from dispatch and inquiries to field-based reports, allowing field personnel to stay focused on protecting their communities, not re-keying data.

Fire

The New World Fire solution provides everything needed to safely respond to incidents, better allocate resources and enhance investigations. New World CAD, Fire Records and Fire Mobile applications integrate seamlessly with the New World Law Enforcement solutions to ensure critical information is always quickly available.

Advantages

- Powerful decision making tools for command staff
- State NFIRS/NEMSIS electronic reporting and compliance with HIPAA requirements
- Complete station activity, scheduling and training management
- Automated tools for incident tracking and investigations
- Streamlined fire field inspections
- EMS management solutions

Tools for Safe and Efficient Incident Command

The integrated New World Fire applications give agencies easy-to-use tools to coordinate an efficient response:

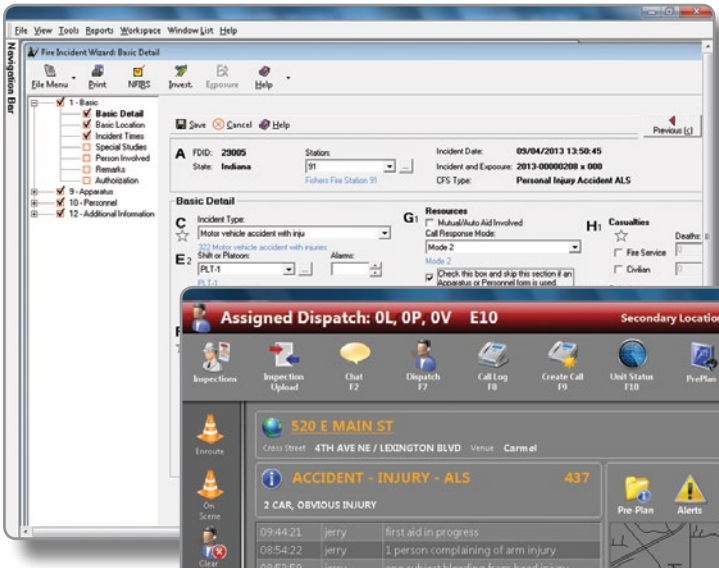
- New World CAD instantly provides a wealth of information including pre-plans, automatic address verification, agency-defined response plans, proximity dispatching, real-time GPS location, rip and run reports, group paging and toning.
- Embedded Esri mapping and pictometry improves tactical awareness using accurate location information.
- On scene, New World Fire Mobile keeps firefighters and command staff informed and connected with dispatch information, unit status monitors and silent messaging.

Because information flows freely between fire and law enforcement applications, firefighters have access to a wealth of safety information that helps them plan and manage the safest and most appropriate response.

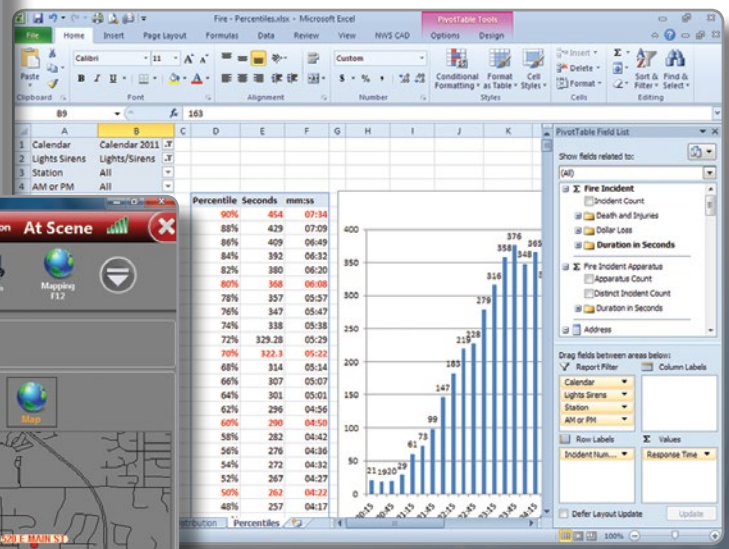
Automated Investigations and Incident Tracking

New World Fire Records saves time and automates the process of tracking incidents and managing fire investigations. Advanced workflow, auto-populated information from CAD and agency-defined configurable fields reduce errors and ensure the proper incident information is always captured.

Fire Incident Entry



Accreditation Reporting



Fire Dispatch with Map

Simplify Reporting Compliance and Accreditation

New World Fire Records Management is compliant with all fire and EMS requirements, including:

- National Fire Information Council (NFIC)
- National Fire Incident Reporting System (NFIRS)
- National Fire Protection Association (NFPA) reporting
- NEMSIS reporting
- HIPAA and NHTSA standards

New World Decision Support further streamlines the reporting needed to achieve and maintain fire agency accreditation and makes reporting on department productivity, incident trends, response times and daily operations effortless.

Enhanced Safety and Productivity in the Field

Designed with the help of firefighters, New World Fire Mobile, Mobile Field Inspections and Mobile EMS Reporting can be easily used on a laptop or Windows tablet. New World Fire Mobile improves access to information and communication between dispatch and responding units in the field. It offers full access to dispatch information, pre-plans, in-vehicle mapping and navigation, safety alerts and more. Fire Mobile Field Inspections provides an efficient and easy way to complete and submit fire inspection reports from the field, even allowing inspectors to work offline. New World EMS Field Reporting allows first responders to easily capture patient information in the field, saving time and eliminating the need to re-key information.

Corrections

New World Corrections Management automates the daily operations of facilities responsible for booking and holding a person in custody, overseeing defendants on pre-trial release and managing sentenced offenders. It is completely integrated with the suite of New World Public Safety software. From booking to release, all inmate data is securely maintained and easily accessible.

Advantages

- Access to a vast amount of inmate information from a single screen
- Wireless handheld inmate and property tracking
- Easy mass move capabilities
- Inmate and facility accounting
- More intelligence for better resource management

Streamline Booking with Time-Saving, Agency-Defined Workflow

New World Corrections Management streamlines the booking process and ensures the accuracy of the information in the system. The Booking Wizard saves time and simplifies the intake process with agency-defined workflow, automatic error checking, the ability to auto-populate fields of information from Records Management and perform NCIC and warrant checks. An incoming booking monitor and pre-booking capabilities in Mobile Computing further reduce data entry and the time it takes to complete booking.

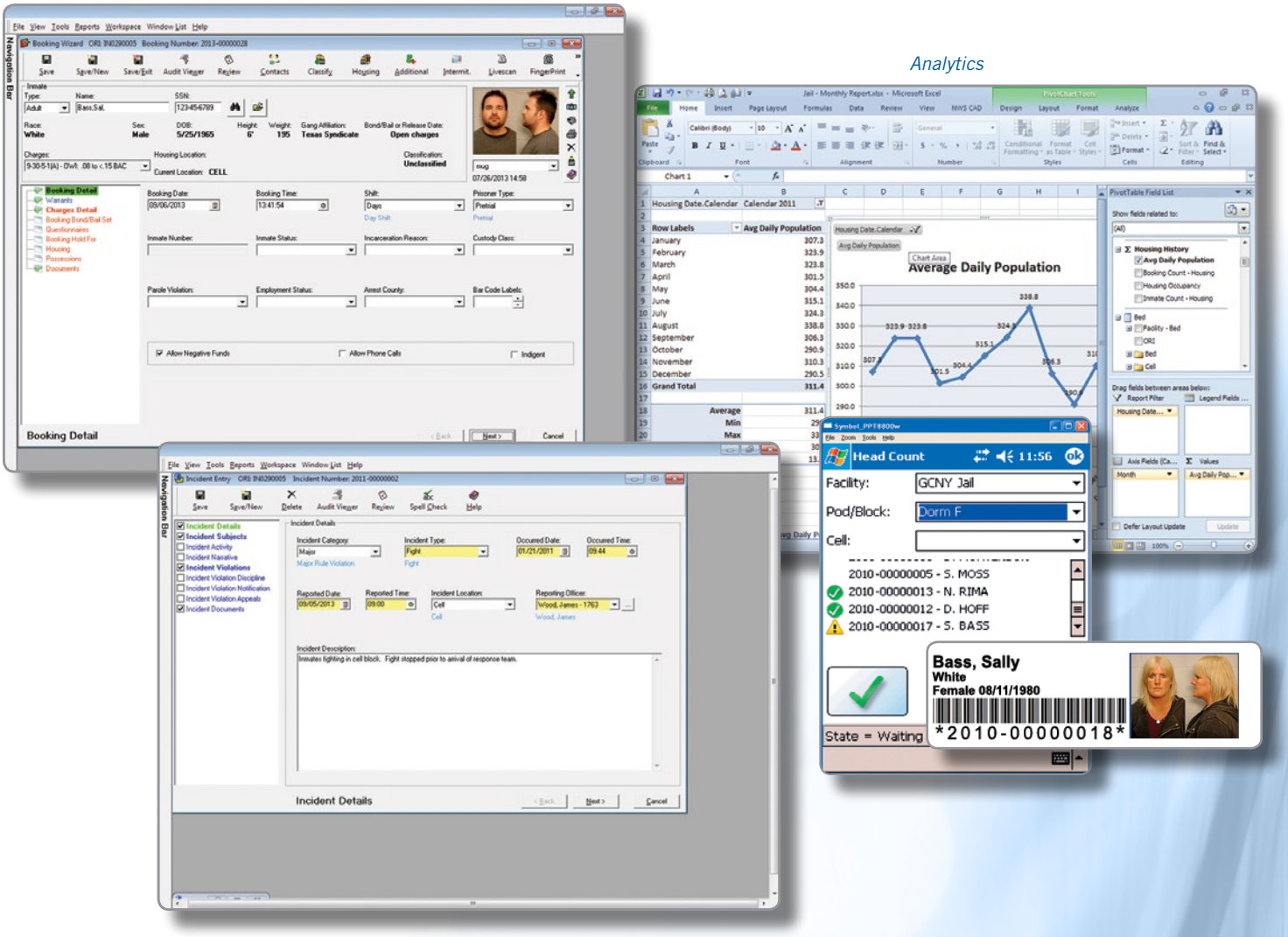
Essential Tools for a Safe and Secure Environment

Efficiently maintaining and providing easy access to the large amount of offender information needed each day is a hallmark of New World Corrections Management. This increases productivity and enables more effective population management. Beyond booking, intermittent scheduling and housing, it also tracks inmate history, movement, medications, account deposits, schedules, court dates and grievances to meet the requirements of a modern jail facility. Integrated barcoding, support for handheld devices and biometric identification further simplify operations.

Software that secures.

Booking Wizard

Analytics



Incident with Workflow

Improve Efficiency with Easy-to-Use and Configurable Software

Users can retrieve critical information quickly and follow proper agency procedures with New World Corrections Management. Agency-defined workflow, booking and release wizards, and easty-to-use navigation reduces risk, eliminates redundant data entry and increases efficiency.

Easily Meet Reporting Requirements and Monitor Operations

New World Corrections Management streamlines the reporting process for mandatory reporting required by the State Department of Corrections and Social Security Administration while supporting the State Criminal Alien Assistance Program (SCAAP) reporting by gathering and maintaining all required information. It also provides command staff with access to activity history, automatic incident notifications and booking review levels, making it easy to monitor for issues. Working with New World Decision Support and Dashboards, command staff and supervisors can quickly access a high-level overview of operations with accurate and comprehensive information to better manage jail population, monitor safety and enhance resource management.

Dashboards

New World Decision Support and Dashboards is an intuitive and effective solution enabling law enforcement, fire and corrections agencies to access their mission-critical data to trend, analyze and deliver information in multiple ways. Instead of simply providing reports, it answers questions with accurate and actionable intelligence that enhances decision making and improves performance and response planning.

Advantages

- Simplified ad hoc reporting
- Intelligence displayed in Web-based grids, reports, graphs and charts
- Key performance indicators help build policing and emergency response strategies
- Microsoft Analytics technologies
- Mapping capabilities help locate patterns and spot trends
- Simplify fire accreditation reporting
- Intelligence is easily accessible on a tablet or iPad®

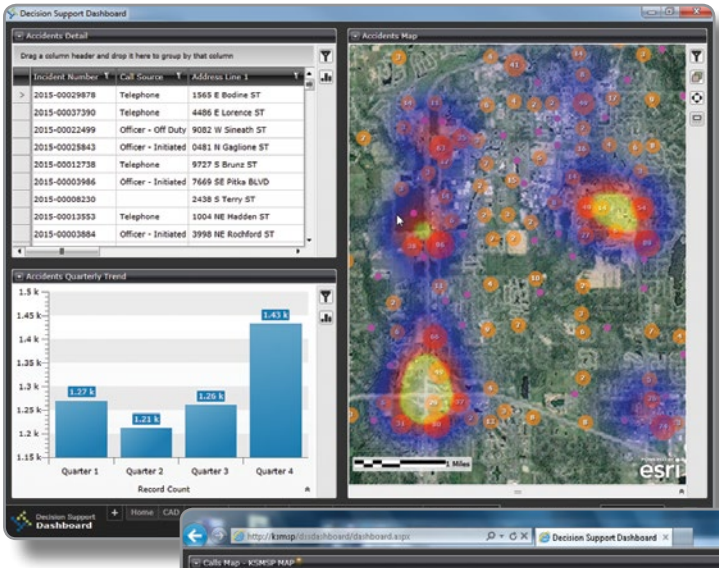
Easy-to-Use Technology for Intelligence-Based Decisions

Utilizing Microsoft Analytics technologies and familiar applications such as Microsoft Excel®, Decision Support delivers the right information quickly. Instead of relying on two-dimensional reports, users can easily trend, pivot and drill-down information, analyze it across many dimensions and display the information in multiple ways. Role-based dashboards offer a high-level overview of operations for supervisors and command staff with instant access to statistical information. Even users without a strong IT background can quickly answer questions about response times, crime trends, prison population and more.

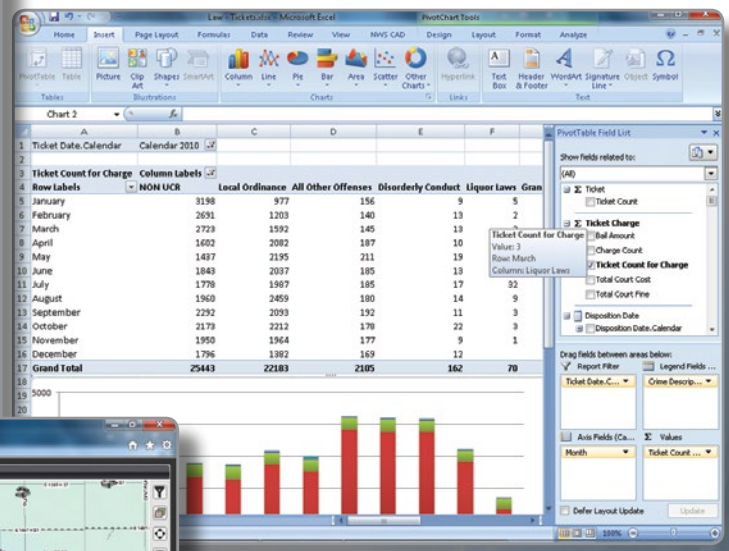
Use Resources Wisely and Improve Crime Reduction Initiatives

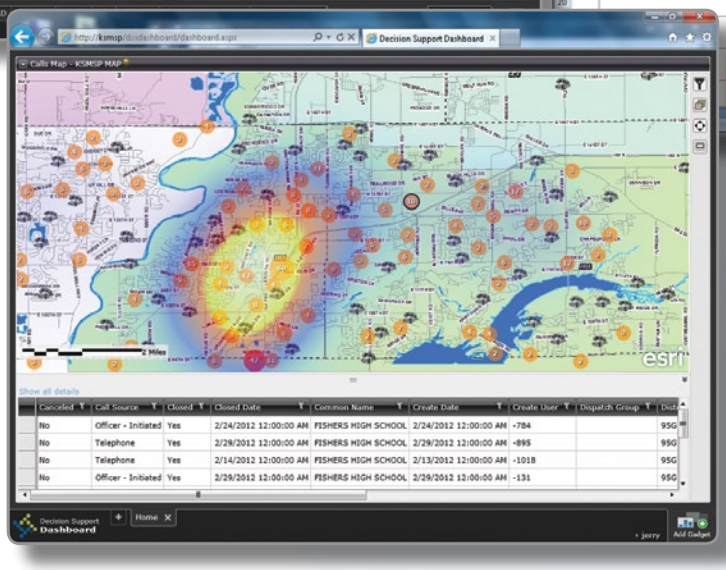
New World Decision Support helps agencies improve crime trending by providing the cost-effective tools to analyze crime data over various time periods and across many dimensions. It improves intelligence-led policing initiatives by providing the foundation for predictive analysis, allowing agencies to better plan, identify and forecast crime patterns.

Information At-a-Glance for Command



Analytics





Decision Support Dashboard Map

Easily Evaluate Response Times and Enhance Fire Accreditation Reporting

New World Decision Support simplifies and automates the complex fractal calculations necessary for fire accreditation reporting, making it the perfect solution to help fire agencies conduct in-depth performance measurements and plan for improvements.

Accurate and Comprehensive Information for Population Management

Corrections facilities need accurate and complete information to effectively manage jail population, monitor safety concerns and perform necessary reporting for state and federal compliance. New World Decision Support and Dashboards makes it easy to gather useful intelligence on bookings, releases and inmate details.

Technology

Tyler Technologies develops solutions using current generation Microsoft .NET technology and leverages strategic partnerships to deliver robust, reliable and innovative public safety software that lasts. Our commercial off-the-shelf (COTS) solutions simplify maintenance and updates for agencies, while making it easy and less costly for Tyler to offer the latest functionality to increase safety and efficiency.

Advantages

- Microsoft .NET framework and features
- Scalable with industry standard Microsoft SQL server
- Use of embedded Esri ArcGIS® server technology
- Support for evolving NG9-1-1 standards, mobility and future public safety requirements
- CJIS compliance
- Virtualization for high availability and disaster recovery options

Esri Development Partnership Improves Map Performance and Simplifies Updates

Tyler's business alliance and unique development relationship with Esri allows the New World suite of software to deliver seamless integration and the highest level of GIS capabilities. The Esri technology embedded within the software offers fast access to a wealth of information and an optimal environment for making quick decisions. Tyler's software architects work closely with ESRI to take full advantage of synchronization capabilities, making it easier for agencies to keep their maps up to date for use in New World.

Mobile Intelligence on an iPad or Windows Tablet

The technology behind Tyler's New World solution provides the flexibility to work from anywhere and puts information at the fingertips of users to dramatically improve decision making. New World LaunchCommand, a native iPad solution, offers access to role-based dashboards, a dispatch and unit status monitor, and the ability to perform Web-based inquiries. Tyler also offers mobility through New World Mobile Computing for Police and Fire on Windows-based tablets. The full-featured mobile tablet solutions provide messaging, mapping, inquiry, and police incident and fire inspections reporting.

A Comprehensive Public Safety Software Solution

Single/Multi-Jurisdictional Dispatch Software

Call Entry
Call Control Panel
Unit Recommendations
Unit Status & Control Panel
Call Stacking
CAD Messaging
Call Scheduling
Dispatch Questionnaire
GIS/Geo-File Verification
Hazard and Location Alerts
Access to AEGIS/MSP LE RMS
Note Pads
Proximity Dispatch
Unit Status and Control Panel
Fire Equipment Search/Fire Equipment Move
Hazmat Search
Hydrant Inventory
Access to AEGIS/MSP Fire RMS
Rip-N-Run Remote Printing
Run Cards/Response Plans
BOLOS
CAD Mapping
CAD Auto Routing
CAD AVL
Hydrant Inventory
Service Vehicle Rotation
Web CAD Monitor

Records Management Software for Single/Multi-Jurisdictional Law Enforcement

Accidents
Activity Time Tracking
Arrest
Business Registry
Case Processing
Computer Aided Investigations
Federal Reports (UCR/IBR)
GIS/Geo-Verification
Impound Vehicles
Incident Tracking
Jacket Processing
Personnel/Education
Property
Traffic Tickets and Citations
Wants & Warrants
Activity Reporting & Scheduling
Alarm Tracking & Billing
Animal Tracking
Bicycle Registration
Bookings
Career Criminal Registry
Case Management
Civil Paper Tracking and Receipting
Data Analysis/Crime Mapping/Management Reporting
Demographic Profiling Reporting
Equipment Tracking
Field Investigations
Gang Tracking
Guns Permits and Registrations
Hazardous Materials
Index Cards
Inventory
Narcotics Management/Criminal Intelligence
Orders of Protection
Pawn Shops
Permits
Property Room Bar Coding
Vehicle Tracking and Maintenance
Web Briefing Notes
Web Case Report Download
Web Accident Report Download

Records Management Software for Fire Departments

Activity Reporting Scheduling
Investigations
Business Registry
Hazardous Materials
GIS/Geo-Verification
Hydrant Inventory and Inspections
Incident Tracking
Inspection Tracking
Personnel/Education
Pre-Plans
Station Activity Log
BLS/ALS
NFIRS 5.0 Electronic Reporting
NEMSIS Electronic Reporting
Data Analysis/Management Reporting
Equipment Tracking and Maintenance
Fire Permits
Inventory
LOSAP Training and Recruiting
Vehicle Tracking and Maintenance

Mobile Computing Software for Law Enforcement and Fire Departments

LE State/NCIC via Switch
LE CAD via Switch
Drivers License Mag Stripe Reader/Barcode
Reader Interface
Mugshot Image Download
State Photo Download
In-Car Mapping
In-Car Routing
New World AVL
Fire CAD via Switch
Fire inspections
EMS Field Reporting (National Standards)

Field-Based Mobile and Squad Room Reporting Software

Incident, Case, Supplement, Arrest and Impound Vehicle Reports
LE Field Reporting Compliance
LE Accident Field Reporting Compliance
Mobile Upload of Field Reports
Field Investigation Field Reporting
Demographic Profiling Questionnaire
MCT Ticket Writer Interface

Corrections Management Software

AEGIS/MSP LE Records Interface
Bookings
D/L Swipe for Visitors
Incident Tracking
Inmate Property Tracking
Inmate Classification
Inmate Housing
Mass Move
Inmate Scheduling and Tracking
Inmate Contacts
Inmate Programs
Inmate Activity Log
Trustee
Case Management
Corrections Officer Log
Finance Management
Jacket Processing
Business Registry
Personnel/Education
GIS/Geo-Verification
Inmate Movement Tracking Bar Coding
Property Room Bar Coding
Commissary Accounting
Data Analysis/Crime Mapping/Management Reporting
Officer Activity Reporting and Scheduling
Officer Equipment Tracking
Grievance Tracking
Web Inmate Inquiry

AEGIS Data Sharing

AEGIS LaunchCommand for iPad

AEGIS Decision Support and Dashboards

LE Management Data Mart
Dashboards for Law Enforcement
Fire Management Data Mart
Dashboards for Fire Management
Corrections Management Data Mart
Dashboards for Corrections Management

Mapping and Geo Capabilities in Software

ESRI ArcGIS
Aerial Photo Layers
Pictometry Imagery
Support for Esri ArcSDE and Geo-Data
Replication
Routing and Driving Directions
Esri Data Standard Formats

NOTE: Software capabilities are available in base package or optional modules, which are subject to change. Optional modules are noted in Italics.

Software that thinks like you do.

Tyler Technologies (NYSE: TYL) is a leading provider of end-to-end information management solutions and services for local governments. Tyler partners with clients to empower the public sector — cities, counties, schools and other government entities — to become more efficient, more accessible and more responsive to the needs of citizens. Tyler's client base includes more than 14,000 local government offices in all 50 states, Canada, the Caribbean, the United Kingdom and other international locations. Forbes has named Tyler one of "America's Best Small Companies" eight times and the company has been included six times on the Barron's 400 Index, a measure of the most promising companies in America. More information about Tyler Technologies, headquartered in Plano, Texas, can be found at **www.tylertech.com.**

info@tylertech.com | 1.800.772.2260 | www.tylertech.com

tyler technologies

Empowering people who serve the public®

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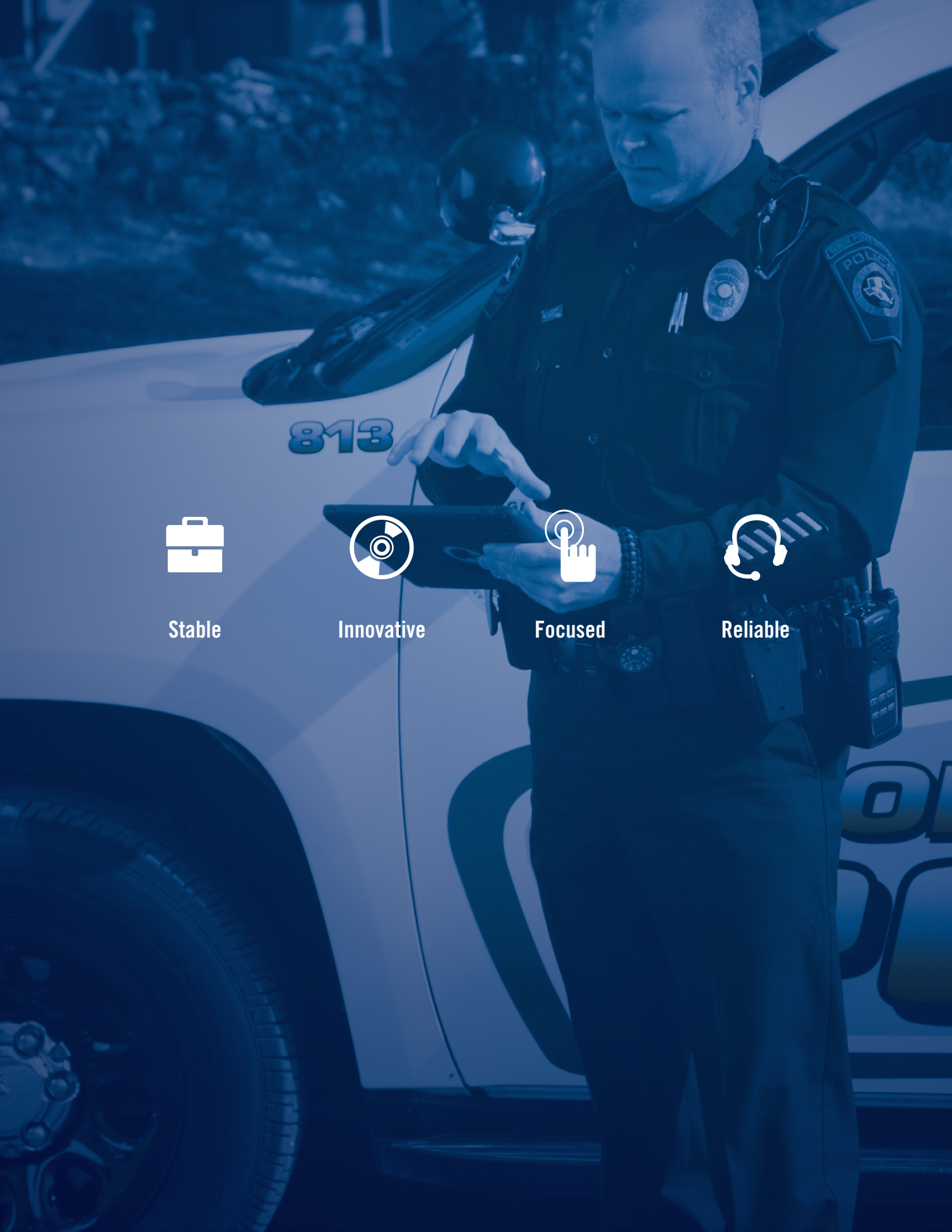
NW-PS-BR-6102-0116

new world™
a tyler public safety solution

Computer Aided Dispatch Solutions

Effectively Manage Emergency Response

tyler technologies



Stable

Innovative

Focused

Reliable

Fast

Tyler Technologies' New World™ Computer Aided Dispatch (CAD) is a highly reliable, easy-to-use enterprise solution that gives call takers and dispatchers the information and tools necessary to make critical decisions quickly. Integrated with the full suite of Tyler public safety solutions, New World CAD is designed to streamline dispatch activity across all disciplines for law enforcement, fire and EMS. It leverages the latest mapping and CAD technology for the fastest and most accurate emergency response, while preparing agencies for Next Generation 9-1-1 (NG9-1-1) and future dispatch requirements.

ADVANTAGES

- Multi-jurisdictional functionality for law enforcement, fire and EMS
- Automated unit recommendations based on proximity and resources
- Industry-leading GIS integration with embedded Esri® and pictometry mapping
- Highly scalable solution for medium, large and consolidating agencies
- Information sharing and enhanced communication
- High availability with the ability to operate without a server connection
- Respond faster and be better informed with Situational Dynamic Response™

Dispatch

Decrease Response Times with New World CAD

New World CAD helps even the most complex, high-volume, multi-agency dispatch centers decrease response times by leveraging advanced features that put information at the fingertips of call takers and dispatchers. These features include the following:

- Situational Dynamic Response for proximity and resource-based dispatch capabilities
- Embedded Esri GIS and Automatic Vehicle Location (AVL) show the closest available units, traffic data and more
- Save time and minimize keystrokes with configurable command lines and function keys
- Defined questionnaires prompt call takers to query and rapidly collect critical information with ProQA/APCO Meds
- E-911 and Phase II wireless call support
- Leverage shared data with automated NCIC and state queries
- TeleStaff™ automated scheduling solution interface
- CAD paging sends call information to smart phones, pagers and additional devices

Increase Safety with Instant Access to Information

With multi-server search, virtual jackets and distributed records, New World CAD streamlines communication between dispatchers, first responders, officers and firefighters to provide a wealth of information that increases the safety of rescue personnel.

Dispatchers and responders are automatically alerted to potentially dangerous situations based on address, person or vehicle. Location details can be accessed quickly via drill-down capabilities in CAD maps.

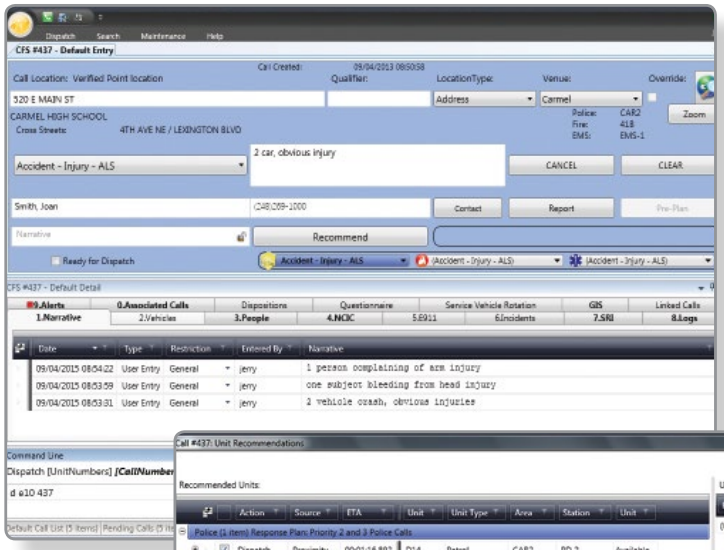
Streamline Operations with Native Integration

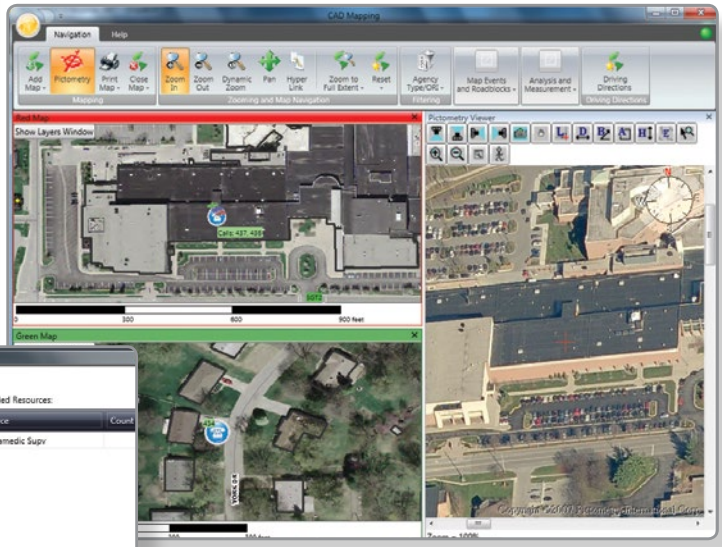
Agencies can send and receive life-saving updates in real time as New World CAD was designed to natively integrate with New World Law Enforcement Records, Fire Records, Mobile Computing, and Corrections. From a single screen, dispatchers can reference alerts, building/business information, locations, vehicles, guns, pre-plans and more.

Improve Communication & Collaboration

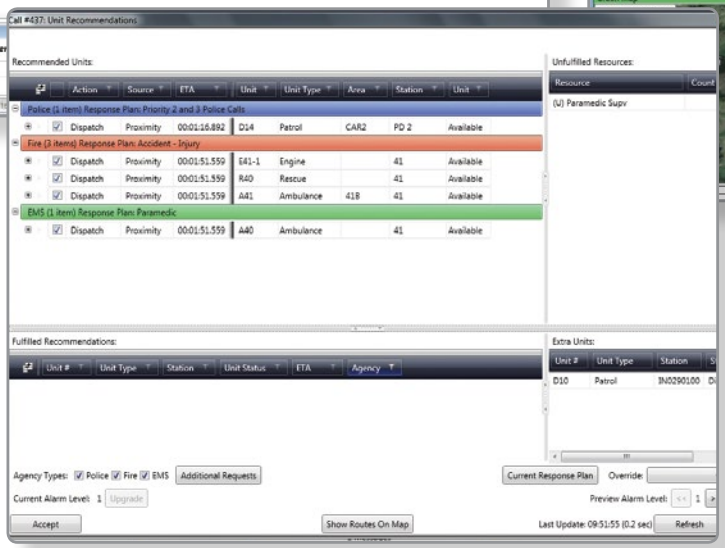
Communication and multi-agency coordination improves with CAD-to-CAD interoperability for transferring call information between dispatch centers. With New World Web CAD Monitor, command staff and field personnel stay informed with real-time call and unit status information via a Web browser.

Call Control Screen





Interactive Map



Unit Recommendations

Easy-to-Use, Configurable CAD Environment is Tailored to Your Procedures

New World CAD is designed to maximize productivity and streamline workflow. Its sleek Microsoft® .NET environment with modern Windows functionality allows dispatchers to accomplish tasks with user-defined screens and views. Configurable screens for role-based dispatching ensure call takers and dispatchers see what they need to, which saves precious time and minimizes distractions.

The ability to quickly and easily select different call types (i.e. law enforcement, fire and EMS) that are distinguished by color further aids dispatchers in sending the right response. New World CAD also allows agencies to configure the solution to use their current commands, syntax and procedures to reduce training time.

Simplify Reporting & Accreditation

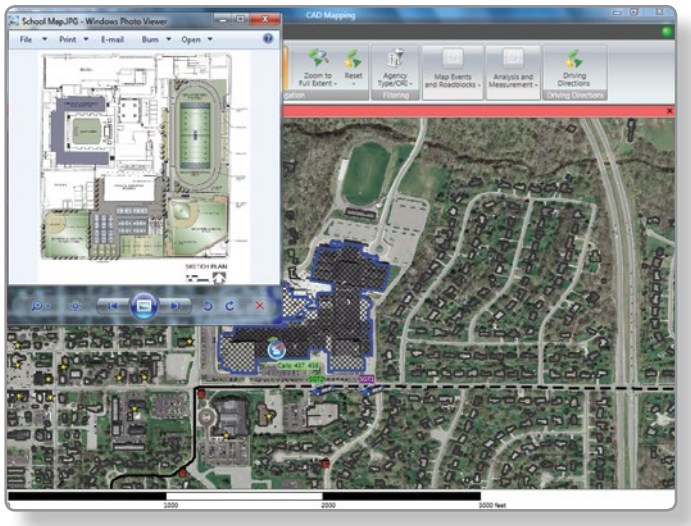
New World CAD offers advanced and easy-to-use reporting that gives agencies insight into operational efficiency and more intelligence for response planning. With the ability to trend, analyze and report on CAD information, agencies can stay on top of crime trends and plan proactive policing initiatives while quickly and easily performing complex fire and police accreditation reporting.

Leading Technology

Advanced, Integrated Mapping with Esri

Tyler's unique development partnership with Esri allows New World CAD to deliver industry-leading GIS integration and Situational Dynamic Response to first responders. These unique NG9-1-1-compliant GIS features provide for better routing that factors in travel time, one-ways, height, weight, turn delays, fractional house numbers, multi-addressable locations and rural addresses.

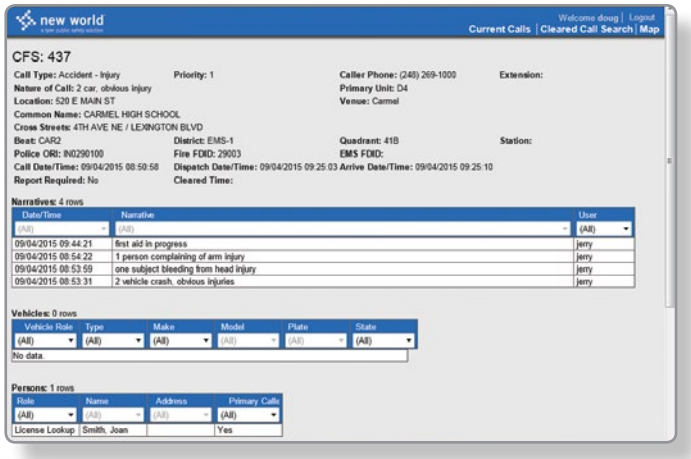
With AVL, dispatchers can track all units in real time and respond instantly when a unit calls for backup. Because New World CAD leverages existing local Esri map data and the latest technology, CAD maps are easy to maintain and update. In addition, supervisors and authorized personnel can make changes on the fly, reducing downtime and avoiding interruption of dispatch activity.



Feature-Rich Mapping

Stability & Strength Dispatchers Can Count On

The technology behind New World CAD makes it one of the most scalable, reliable and powerful enterprise emergency management solutions in the market. It is built to ensure optimal performance in the most complex and high-volume dispatch environments. It maximizes availability by allowing dispatch stations to operate even if there is an interruption with the server.



New World Web CAD Monitor

A Foundation for the Future

The foundation behind New World CAD, coupled with Tyler's continued investments in GIS and CAD technology, provide the framework needed to support NG9-1-1 functionality. New World CAD prepares agencies for future mobility, intelligence and other dispatch requirements.

A Comprehensive Public Safety Software Solution

Computer Aided Dispatch Software for Law Enforcement, Fire and EMS

Call Entry
Call Control Panel
Unit Recommendations
Unit Status & Control Panel
Call Stacking
CAD Messaging
Call Scheduling
Dispatch Questionnaire
GIS/Geo-File Verification
Hazard & Location Alerts
Access to New World Law Enforcement Records
Note Pads
Proximity Dispatch
Unit Status & Control Panel
Fire Equipment Search/Fire Equipment Move
Hazmat Search
Hydrant Inventory
Access to New World Fire Records
Rip-N-Run Remote Printing
Run Cards/Response Plans

Optional Dispatch Software and Interfaces

BOLOS
CAD Mapping
CAD Auto Routing
CAD AVL
Hydrant Inventory
Service Vehicle Rotation
Web CAD Monitor
New World CAD to New World CAD Interface
CAD Paging Interface
E-911 Interface
Pictometry Interface
Pre-Arrival Questionnaire Interface
Encoder Interface
Fire Records Interface
Deccan LiveMUM Interface
Telestaff Interface
ePCR Interface

Mapping & GEO Capabilities in Software

Esri ArcGIS Server Advanced Enterprise & ArcGIS Runtime
Aerial Photo Layers
Pictometry Imagery
Support for Esri ArcSDE & Geo-Data Replication
Routing & Driving Directions
Esri Data Standard Formats

More About CAD Interfaces & Optional Modules

CAD 911/E-911 Phase II Compliant

- Establishes a direct connection with the telephone company to ensure accurate information for all Emergency 911 calls
- Populates latitude and longitude coordinates for Phase II Cellular E-911 calls

State/NCIC Access

- Direct access to State/NCIC

Information Sharing

- Access to regional data sources in real time, such as other records management, corrections and courts systems, as well as DMV, allowing dispatchers to obtain complete information on a person, vehicle or property
- Web CAD Monitor provides other agencies or dispatch centers with the ability to monitor dispatch center activity via a Web-based Call and Unit Status Monitor

CAD-to-CAD Interface

- CAD-to-CAD Interface enables a call taker or dispatcher to send a Call for Service from their dispatch center to another dispatch center using their New World CAD software

Automatic Vehicle Location (AVL)

- See the units in the field on a map, enhance dispatching operations, and increase officer safety
- Transmits unit location and logs data, including latitude/longitude, speed, direction and closest address, for mapping and tracking purposes
- Use CAD AVL Playback to review incidents, track vehicles or monitor past activity in an area during a specific time frame

Data Analysis | Crime Mapping | Management Reporting

- Streamlines management reporting and analysis
- Allows users to quickly and easily create reports, maps and graphs to provide better allocation of resources in areas of high crime

Decision Support & Command Staff/Supervisor Dashboards

- Access to critical data to report, trend and analyze in multiple ways, which enhances decision making and improves response planning
- High-level overview of operations and performance of dispatch center, including monitoring of incidents, response times, calls, etc.

NOTE: Software capabilities are available in base package or optional modules, which are subject to change.

Software that thinks like you do.

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tyler technologies

Empowering people who serve the public®

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new world™
a tyler public safety solution

Fire and EMS Solutions

Integrated Software for Public Safety

Empowering people who serve the public®

tyler technologies

Stable

Innovative

Focused

Reliable

Proven

The safe choice in public safety software

With decades of stability, innovation and public sector focus, Tyler Technologies is one of the most trusted public sector software companies in the market for public safety solutions.

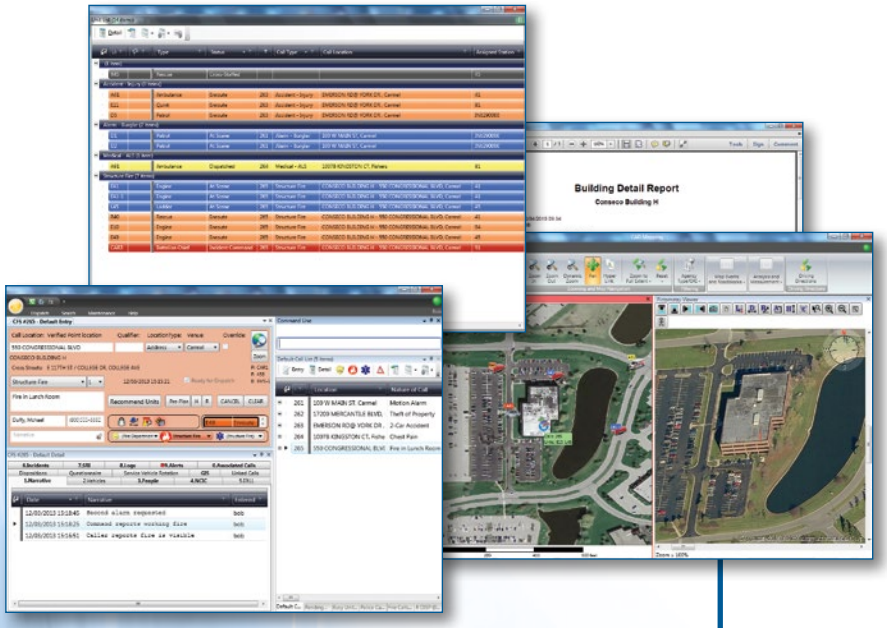
Full suite of end-to-end solutions

Built on current generation Microsoft®.NET technology, Tyler's New World™ public safety software solutions offer unmatched application integration with easy maintenance and administration for years to come.

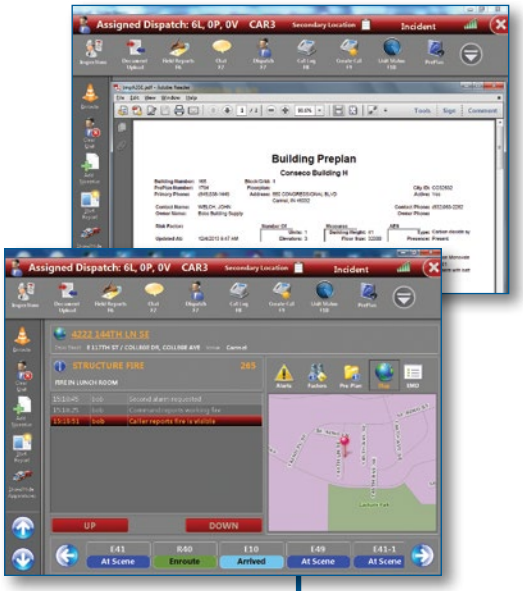
Unrivaled R&D investments keep software current

Tyler continues to invest tens of millions of dollars in R&D and employ hundreds of software developers who work with client agencies to continuously enhance the New World suite. This protects your long-term investment and ensures you are ready for advances in data sharing, mobility, intelligence, and future service requirements.

Computer Aided Dispatch



Fire Mobile Computing

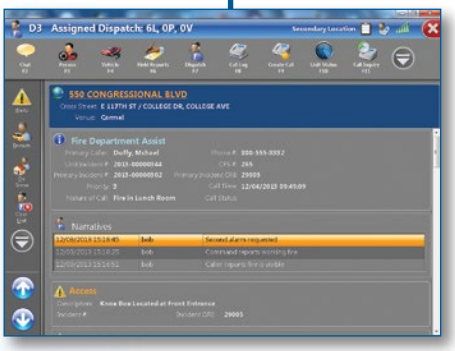


Dispatch receives 9-1-1 call reporting structure fire.

Dispatch captures details and location information, while accessing interactive maps, hydrant locations and pre-plans. Info is seamlessly sent to fire, EMS and police responders.

Dispatch information is presented quickly and clearly for responding fire, EMS and police, including maps, directions, hydrant locations, hazards, pre-plans, etc.

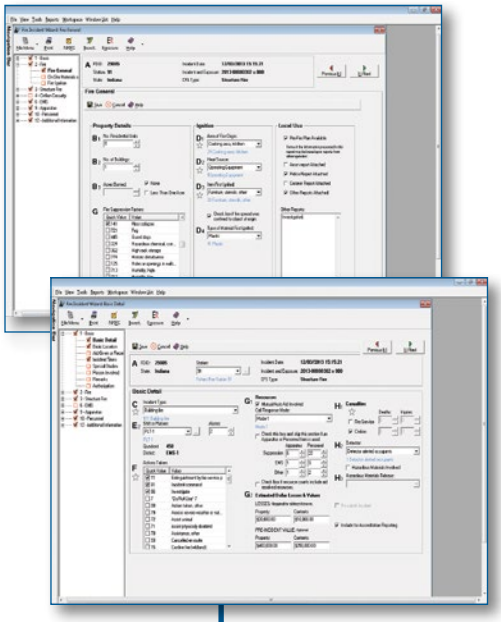
Tyler's true integration enables information to flow seamlessly throughout the suite of New World software applications. From the first call for help to a fast response, public safety personnel have access to accurate intelligence to make more informed decisions.



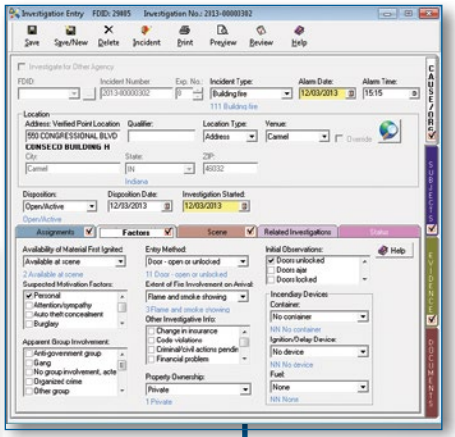
Law Enforcement Mobile Computing

Integrated across departments and disciplines

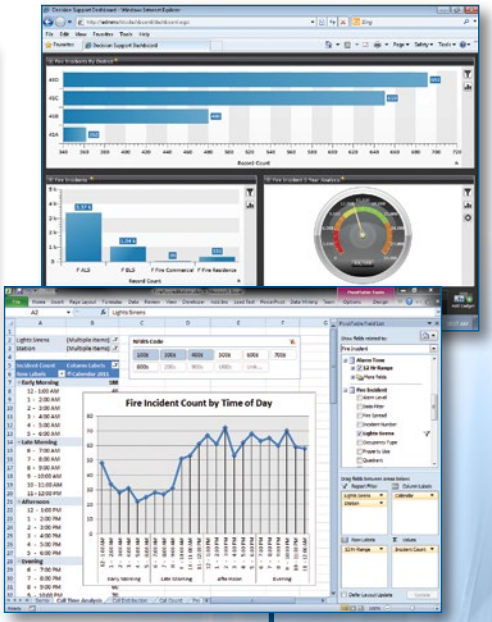
Fire Records Management - Incident Wizard



Investigation



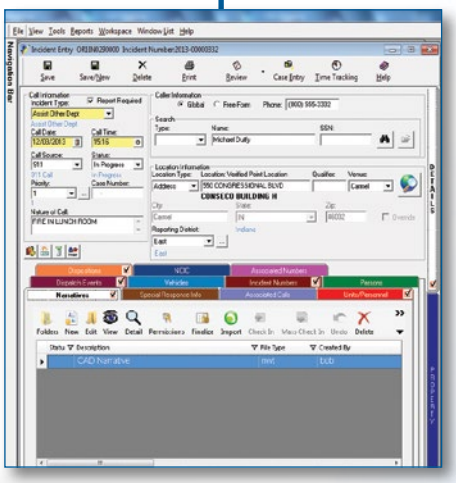
Fire Decision Support



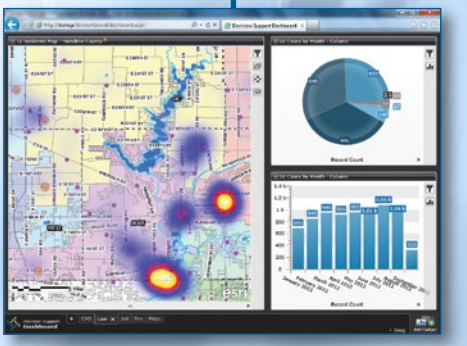
CAD information including units, times, narrative, and hydrant information populates Fire Records simplifying NFIRS reporting. CAD information also populates Police Records.

Information and evidence obtained at the scene is securely tracked in the investigations module.

This incident information is stored and used by command staff to monitor station performance, complete accreditation reporting and determine resource allocation.



Law Enforcement Records Management



Law Enforcement Decision Support

Dispatch

With New World Computer Aided Dispatch (CAD) from Tyler Technologies, call takers, dispatchers, and firefighters receive the information and tools necessary to make urgent decisions quickly. Used by medium-sized agencies to large consolidated dispatch centers, this flexible, scalable, and reliable tool streamlines dispatching activities for fire, emergency medical services and law enforcement.

By leveraging the latest technological advances, New World CAD prepares agencies for trends such as NG9-1-1, agency and jurisdictional consolidation, big data analytics, data sharing and enhanced GIS capabilities.

Advantages

- Multi-jurisdictional dispatching functionality
- NG9-1-1 addressing standards compliant
- Embedded GIS and pictometry improves tactical awareness
- Agency-defined response plans
- Real-time GPS unit location for recommendations
- Rip-and-run reports to stations
- Agency-defined paging and toning
- Information sharing via CAD-to-CAD
- Built-in reports support agency-defined requirements

Improve firefighter safety and response times

Firefighters stay better informed and prepared with the instantaneous information provided by New World CAD, which includes built-in pre-plans, proximity alerts for hazards, hazmat alerts and police information including wants, warrants and prior incidents.

New World CAD, Fire Records, and Fire Mobile applications integrate seamlessly with the New World Law Enforcement solutions to ensure critical information is always quickly available. This integration also ensures that CAD unit recommendations take into account personnel skills and equipment information stored in Fire Records.

Situational Dynamic Response™

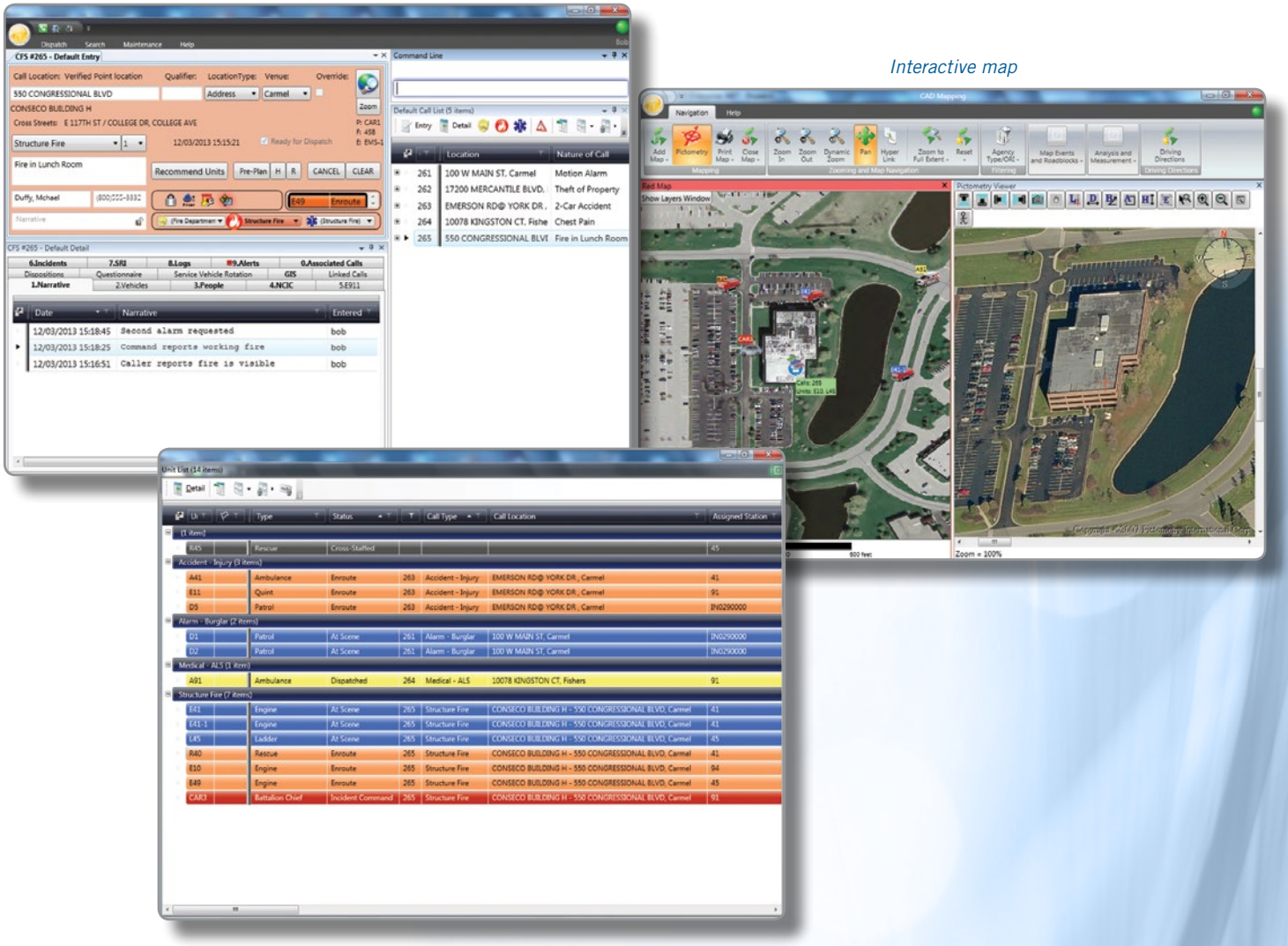
Arrive on the scene safer and better prepared with true situational awareness powered by the latest Esri® mapping technology. Situational Dynamic Response provides firefighters with:

- Dynamic ETAs based upon travel time, road systems and real-world routing factors
- Access external data services including traffic cameras, sensors, alarms and demographic data
- Decrease response times by leveraging GIS data from neighboring agencies

Software that responds

Call control screen

Interactive map



Unit status monitor

Designed to maximize productivity and minimize effort

Easy-to-use New World CAD provides a familiar Windows® environment, command-line entry, drag-and-drop dispatch, a fully integrated map, and is configurable to agency-specific needs. It provides access to the exact information and functions each call taker and dispatcher needs when every second counts.

More location information enhances situational awareness

The latest Esri technology embedded in New World CAD provides geographical analysis and visual reference to dispatchers and firefighters through high-performing, easy-to-maintain maps.

New World CAD maps contain a wealth of information, including hydrant information, hazardous materials, prior incidents, pre-plans, floor plans, and hyperlinks to IP address cameras along with the ability to track and monitor all units to improve preparedness.

Fire RMS

New World Fire Records Management from Tyler Technologies provides everything needed to efficiently respond to incidents, better allocate resources, enhance investigations and improve reporting. It also automates tasks associated with fire prevention including inspections, equipment and fleet management, and training.

Advantages

- State NFIRS/NEMSIS electronic reporting and compliance with HIPAA requirements
- Complete station activity, scheduling and training management
- Automated tools for incident tracking and investigations
- Streamlined fire field inspections
- EMS management solutions
- Complete fleet and station activity management

Critical information at your fingertips

New World Fire Records increases firefighter safety by maintaining detailed pre-plans and providing fast access to building and business information, including:

- Location of fire extinguishers, standpipes, hose cabinets and alarm panels
- Safety procedures
- Building factors
- Inspection history
- Hazardous materials

Save time entering incidents and NFIRS reports

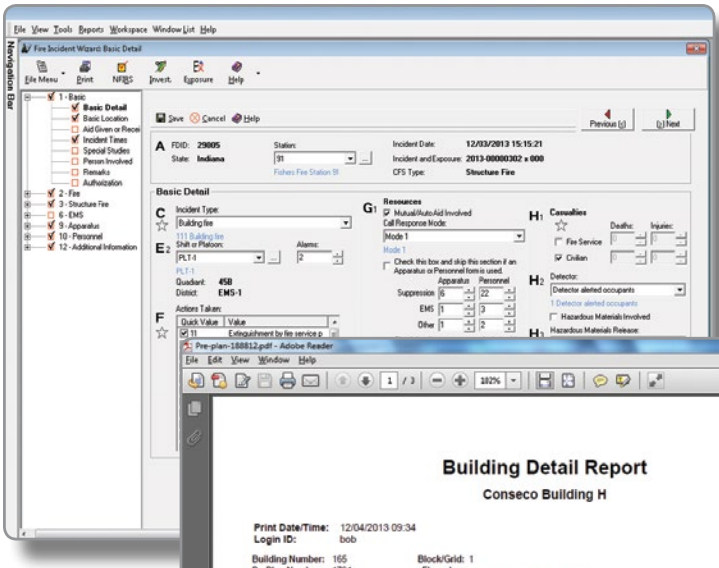
Streamline the time it takes to enter incident information and perform National Fire Incident Report Systems (NFIRS) reporting with New World Fire Records.

With the Fire Incident Entry Wizard guides, users view data needed for each incident type along with mandatory NFIRS 5.0 compliant information.

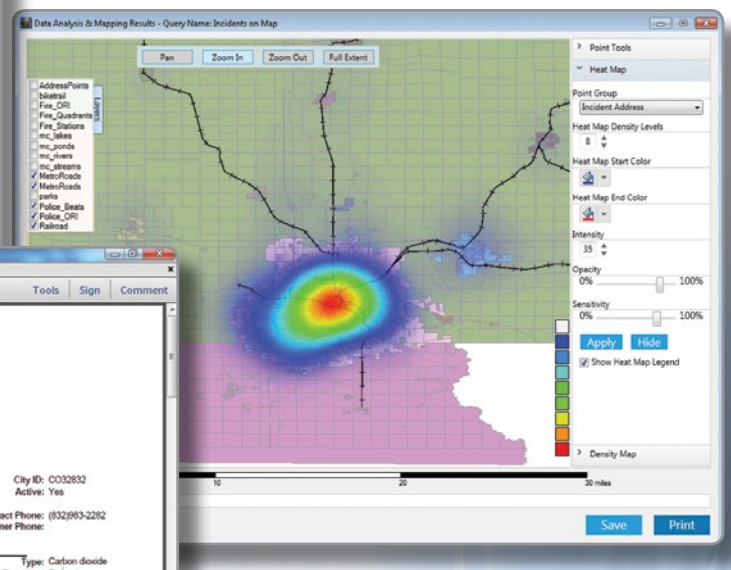
Information from CAD pre-populates the incident entry wizard. New World Fire is fully compliant with the National Fire Information Council (NFIC) and provides pre-formatted reports and automatic edit checks to further ensure reporting accuracy.

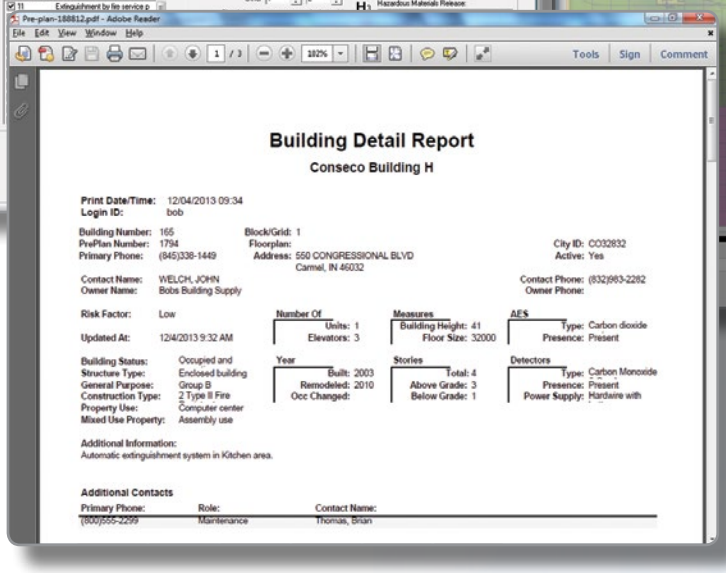
Software that automates

Fire Incident NFIRS



Data analysis and mapping





Building Detail Report

Conseco Building H

Print Date/Time: 12/04/2013 09:34
Login ID: bob

Building Number: 165
PrePlan Number: 1794
Primary Phone: (845)338-1449

Block/Grid: 1
Floorplan:
Address: 550 CONGRESSIONAL BLVD
Carmel, IN 46032

City ID: CO32832
Active: Yes

Contact Name: WELCH, JOHN
Owner Name: Bobs Building Supply

Contact Phone: (832)983-2282
Owner Phone:

Risk Factor: Low

Updated At: 12/4/2013 9:32 AM

Number Of
Units: 1
Elevators: 3

Measures
Building Height: 41
Floor Size: 32000

AES
Type: Carbon dioxide
Presence: Present

Building Status: Occupied and
Structure Type: Enclosed building
General Purpose: Group B
Construction Type: 2 Type II Fire
Property Use: Computer center
Mixed Use Property: Assembly use

Year
Built: 2003
Remodeled: 2010
Occ Changed:

Stories
Total: 4
Above Grade: 3
Below Grade: 1

Detectors
Type: Carbon Monoxide
Presence: Present
Power Supply: Hardwire with

Additional Information:
Automatic extinguishment system in Kitchen area.

Additional Contacts

Primary Phone:	Role:	Contact Name:
(800)555-2299	Maintenance	Thomas, Brian

Building pre-plan information

Enhanced investigations and inspection tracking

Store all information related to an incident in a single location, including in-depth details and photos with New World Fire Records. This helps departments keep a better record of inspections by tracking and storing detailed information including history, status and notes.

Complete station activity and training management

New World Fire Records provides tools that help departments easily track and manage scheduling, personnel training and equipment maintenance and inventory. Shift management tools allow users to create schedules for stations, shifts or specific personnel while monitoring department-specified and state-mandated training status. The software also automates equipment maintenance and inspection schedules to ensure equipment meets safety standards. New World does this by maintaining a detailed equipment history including maintenance, problem logs and reports.

Simplified HIPAA and EMS reporting compliance

Capture response information on a patient including unit times and procedures, when arriving at a scene. New World ensures HIPAA requirements are met and streamlines EMS reporting processes for compliance with state and federal standards. In addition, all reports meet National EMS Information Systems (NEMSIS) and National Highway Traffic Safety Administration (NHTSA) reporting requirements.

Fire Mobile

Designed with fire users in mind, New World Fire Mobile from Tyler Technologies provides full access to dispatch information, building pre-plans and alerts, helping to decrease response times. Connected or temporarily disconnected, firefighters stay informed in the field with access to everything known about a building, business or location.

The Microsoft®.NET technology behind New World Fire Mobile provides easy and familiar Windows navigation with all incident information presented on a single screen and drill-down capabilities to more details.

Advantages

- Designed for easy use on a laptop or Windows tablet
- Real-time, clear and concise dispatch information
- Feature-rich mapping
- Streamline and automate field inspections
- EMS field reporting
- Continue operations in low or no-bandwidth areas

Improved communication and collaboration

New World Fire Mobile keeps everyone connected through messaging, silent dispatching and Automatic Vehicle Location (AVL). New World dramatically improves communication between firefighters in the field, CAD and Fire Records to ensure that first responders are aware of other unit locations and their status.

Using AVL, dispatchers and fire personnel in the field have the ability to see nearby vehicles, along with their speed and direction, enabling them to respond instantly.

Easy access to more location information

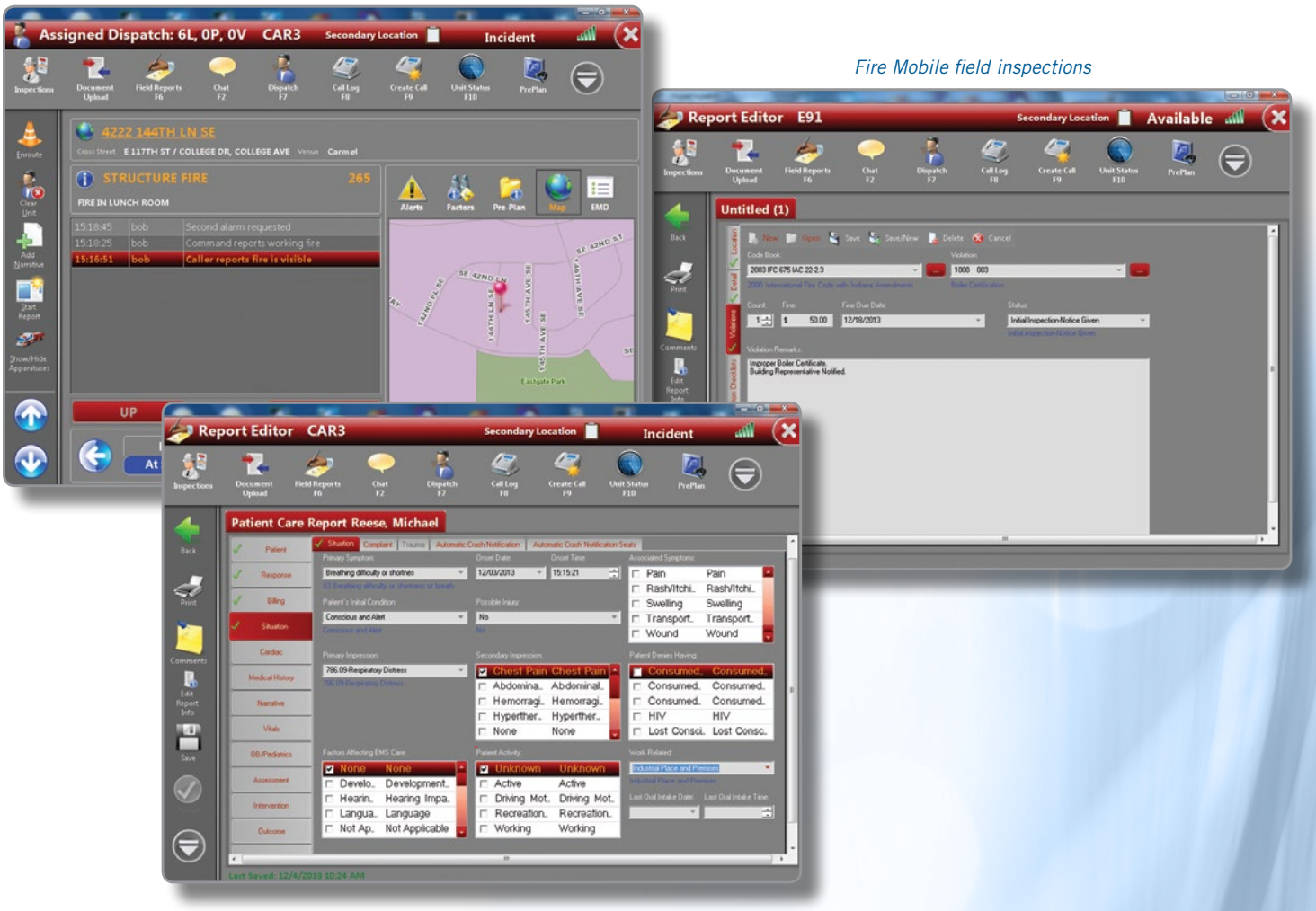
Embedded mapping capabilities in New World Fire Mobile provide firefighters with up-to-the-minute views of all activity utilizing information from dispatch, including incident location, turn-by-turn driving directions, and hydrant locations.

Firefighters in the field also have access to pre-plans and important building information that is automatically available based on location.

Software that improves efficiency

Fire Dispatch with map

Fire Mobile field inspections



Fire Mobile patient care report

Save time and reduce data entry during inspections

New World Fire Mobile Field Inspections provide an efficient way to complete and submit fire inspection reports to Fire Records from the field. Used on any Windows tablet or laptop that supports Fire Mobile, it replaces hand-written reports, reduces data entry and helps fire agencies accomplish more in the field. These reports can be completed even when the system is temporarily disconnected.

Provide faster and more complete care

New World Mobile Electronic Patient Care Reporting (ePCR) allows first responders to capture patient information in the field from a laptop or Windows tablet. Users can immediately record vital information including medical history, medications and electronic signatures. Time-saving advanced workflow ensures information entered is saved and made available in Fire Records.

In addition to capturing all NEMSIS Gold required information, New World Mobile ePCR fields and workflow is configurable to meet state and agency needs.

Dashboards

New World Decision Support and Dashboards are intuitive and effective solutions that enable fire agencies to access their mission-critical data to trend, analyze and deliver information in multiple ways.

Instead of simply providing reports, Decision Support and Dashboards answer questions with actionable intelligence to enhance decision making and improve response planning.

Advantages

- Powerful decision making tools for command staff
- Streamlined ad hoc reporting
- Simplify fire accreditation reporting
- Intelligence displayed in Web-based grids, reports, graphs and charts
- Microsoft Analytics technologies
- Mapping capabilities help locate patterns and spot trends
- Easily accessible via a tablet or iPad®

Intelligence-Based decision making

Utilizing Microsoft analytics technologies and familiar applications such as Microsoft Excel®, Decision Support delivers the right information quickly.

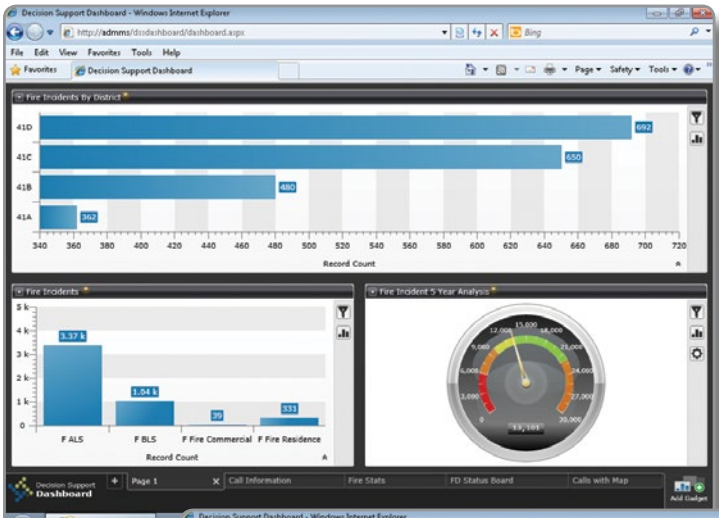
Instead of relying on two-dimensional reports, users can easily trend, pivot, and drill-down and through information in multiple ways. Role-based dashboards offer a high-level overview of operations for supervisors and command staff with instant access to statistical information.

Even users without a strong IT background can quickly answer questions about response times and operations.

Automate fire accreditation reporting

Decision Support streamlines the reporting needed to achieve and maintain fire agency accreditation. It simplifies and automates the necessary complex percentile calculations. This allows departments to analyze information by various attributes including time, quadrant and station for in-depth performance measurement.

Decision Support dashboard



Decision Support time of day

Dashboard heat map

Information at-a-glance for command

New World Decision Support dashboards offer access to statistics including response times, incident information and station or department information. The dashboards also allow command staff and supervisors to drill deeper into areas of concern, helping them make fast and well-informed decisions.

Optimize internal procedures and performance

New World Decision Support makes monitoring and reporting on department productivity, effectiveness and daily operations effortless. It can be used to analyze response times, track firefighter performance and aggregate incident data over various time periods, dissecting it across many dimensions for improved trending.

These dashboards also provide reporting and trending tools to help departments plan fire prevention initiatives, demonstrate the benefits, and justify the costs of improved or expanded services.

Technology

Tyler develops solutions using current generation Microsoft®.NET technology and leverages strategic partnerships to deliver robust, reliable and innovative public safety software that lasts.

Our commercial off the shelf (COTS) solutions simplify maintenance and updates for agencies, while making it easy and less costly for Tyler to offer the latest functionality to increase safety and efficiency.

Advantages

- Microsoft®.NET framework and features
- Scalable with industry standard Microsoft SQL Server
- Embedded Esri ArcGIS server technology
- Support for evolving NG9-1-1 standards, mobility and future public safety requirements
- CJIS compliance
- Virtualization for high availability and disaster recovery options

Industry-Leading GIS integrations

- Tyler is Esri's largest public safety partner
- Tyler is the only public safety solution provider participating in Esri's Business Partner Advantage program
- Engaged in Esri's exclusive private beta testing program

Mobile intelligence on an iPad or Windows tablet

The technology behind Tyler's solutions provides the flexibility to work from anywhere and places information at the fingertips of users to improve decision making.

New World LaunchCommand, a native iPad solution, offers access to role-based dashboards, a dispatch and unit status monitor and the ability to perform web-based inquiries.

New World's Mobile Computing for fire and law enforcement is offered on Windows-based tablets. The full-featured mobile tablet solutions provide messaging, mapping, inquiry and police incident and fire inspections reporting.

Software that evolves

Comprehensive Public Safety Software Solution

Dispatch Software

Call entry
Call control panel
Unit recommendations
Unit status and control panel
Call stacking
CAD messaging
Call scheduling
Dispatch questionnaire
GIS/Geo-File verification
Hazard and location alerts
Access to AEGIS LE RMS
Note pads
Proximity dispatch
Unit status and control panel
Fire equipment search/fire equipment move
Hazmat search
Hydrant inventory
Access to AEGIS Fire RMS
Rip-N-Run remote printing
Run cards/response plans

Optional dispatch software and interfaces

BOLOS
CAD mapping
CAD auto routing
CAD AVL
Hydrant inventory
Service vehicle rotation
Web CAD monitor
New World CAD to New World CAD interface
CAD paging interface
E-911 interface
Pictometry interface
Pre-Arrival questionnaire interface
Encoder interface
Fire records interface
Deccan LiveMUM interface
Telestaff interface
ePCR interface

Fire Records Management Software

Activity reporting and scheduling
Investigations
Business registry
Hazardous materials
GIS/Geo-Verification
Hydrant inventory and inspections
Incident tracking
Inspection tracking
Personnel/education
Pre-Plans
Station activity log
BLS/ALS

Compliance reporting and optional records management software

NFIRS 5.0 electronic reporting
NEMSIS electronic reporting
Data analysis/management reporting
Equipment tracking and maintenance
Fire permits
Inventory
LOSAP training and recruiting
Vehicle tracking and maintenance

Fire Mobile Computing Software

Fire CAD via Switch
In-Car apping
In-Car Routing
New World AVL
Fire Inspections
EMS Field Reporting (National Standards)

Decision Support and Dashboards

Fire Management Data Mart
Dashboards for fire management

Technology partners

Priority Dispatch ProQA
Esri
Deccan
Pictometry
Zetron
Telestaff

More about fire interfaces and optional modules

Data analysis and mapping

- Extract information easily to create analysis and management reports
- Plot fire incidents onto a map to identify fire trends and types, to see areas of concern, and better allocate resources
- Export data results in a variety of formats

State/NFIRS 5.0 electronic reporting

- Meets all National Fire Incident Reporting System (NFIRS) 5.0 requirements
- Ensure requirements are met and reports are consistent with agency-defined fields
- Submit reports electronically

Telestaff scheduling

- Update database by transferring shift, unit, and personnel data from Telestaff
- Data exchange is automatic and user definable

ProQA Paramount Platinum certified

- Tyler Technologies is certified at the Platinum level for ProQA® Paramount, with support for Multi-Discipline Launching

CAD Paging and Toning

- New World CAD Paging supports industry standard and individual agency protocols
- Users can manually page individuals and groups or pages can be sent automatically based on units dispatchedy

NOTE: Software capabilities are available in base package or optional modules, which are subject to change.

Software that thinks like you do.

Tyler Technologies (NYSE: TYL) is a leading provider of end-to-end information management solutions and services for local governments. Tyler partners with clients to empower the public sector — cities, counties, schools and other government entities — to become more efficient, more accessible and more responsive to the needs of citizens. Tyler's client base includes more than 14,000 local government offices in all 50 states, Canada, the Caribbean, the United Kingdom and other international locations. Forbes has named Tyler one of "America's Best Small Companies" eight times and the company has been included six times on the Barron's 400 Index, a measure of the most promising companies in America. More information about Tyler Technologies, headquartered in Plano, Texas, can be found at **www.tylertech.com.**

info@tylertech.com | 1.800.772.2260 | www.tylertech.com

tyler technologies

Empowering people who serve the public®

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Esri and ArcGIS are registered trademarks of Environmental Systems Research Institute, Inc.

NW-FIRE-BR-6118-0116

2.0 Technical Architecture Information

2.1 Proposed Applications and Current Network

Our response centers around a Windows Server 2012 configured to work within the County's network. The Windows Server 2012 is the most integrated, comprehensive and easy-to-use server operating system available today. Its flexibility and expanded communications services meet the most demanding requirements of today's computing environments, while providing the best network foundation for the future.

The system configuration will provide high performance. A Windows workstation environment exists to provide the ability to switch/interface applications easily, including any workstation-based applications the user may require. The Windows look and feel combined with New World's standard menu-driven capabilities results in a familiar and practical presentation format.

Some of the major benefits of the Windows Server 2012 are its processing speed, reliability and storage capabilities. All communication procedures, system security, network monitoring and server diagnostics are made simple with graphical user interfaces. The operating system was designed to allow the system to grow as a customer's needs change. The ability to add hardware components without the need to modify the Windows Server 2012 software protects your original investment for many years to come. Tyler will team with the County to develop a successful project plan and together we will proceed through a smooth implementation process that culminates when the system goes live.

2.1.1 New World Public Safety Software Requirements

System Hardware

Servers

Primary Host Servers

(3) Dell PowerEdge 630 (1U) Rack Server (Or Similar)

- (2) Intel Xeon E5-2650 2.3GHz, 2133MHz, 10C Processors
- 128GB 2133MHz RDIMMs (Memory)
- Internal Dual SD Module with 8GB SD Card
- Embedded SATA Controller
- (1) Intel X710 Quad Port 10GB NIC (Integrated)
- (1) Intel X710 Dual Port 10GB NIC (PCIe)
- Redundant 750W Hot Swappable Power Supplies
- DVD/ROM, SATA, Internal
- 3 Year ProSupport and Mission Critical 24X7X4 Hour Onsite

Primary Storage Array (SAN)

Dell EqualLogic PS4210XV (2U) 10GB iSCSI SAN (Or Similar)

- (24) 600GB 15K-RPM 2.5" SAS Hot Swap Disk Drives (14.4TB RAW)
- Dual Controllers with 16GB Battery Backed Cache Memory
- Supports RAID 5, RAID 6, RAID 10, RAID 50

- (2) 10GB Ethernet Network Interfaces Per Controller (4 Total)
- Redundant Hot Swappable Controllers, Power Supplies, Cooling Fans
- Includes EqualLogic Array, Host, and Management Software
- 3 Year ProSupport and Mission Critical 24X7X4 Hour Onsite

Backup Host Servers

(2) Dell PowerEdge 630 (1U) Rack Server (Or Similar)

- (2) Intel Xeon E5-2650 2.3GHz, 2133MHz, 10C Processors
- 128GB 2133MHz RDIMMs (Memory)
- Internal Dual SD Module with 8GB SD Card
- Embedded SATA Controller
- (1) Intel X710 Quad Port 10GB NIC (Integrated)
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- Redundant Hot Swappable Controllers, Power Supplies, Cooling Fans
- Includes EqualLogic Array, Host, and Management Software
- 3 Year ProSupport and Mission Critical 24X7X4 Hour Onsite

System Software

Primary Host Servers

(6) Windows Server 2012 (R2) - Standard Edition, 2 Processors (12 VMs Total)
(250) Microsoft Windows Server 2012 - User/Device CALs (Estimated)
(4) SQL Server 2014 - Standard Core Edition (8 vCPUs Total)
(1) VMware Essentials Plus 6 - Includes vSphere & vCenter for 3 Hosts, 1 Yr. SNS
(1) VMware Site Recovery Manager 5 (25 VM Pack) - Standard, 1 Yr. SNS
(2) Microsoft Word 2013 (Production and Test)
(2) Microsoft Excel 2013 (Production and Test)

Backup Host Servers

(6) Windows Server 2012 (R2) - Standard Edition, 2 Processors (12 VMs Total)
(1) VMware Essentials Plus 6 - Includes vSphere & vCenter for 3 Hosts, 1 Yr. SNS

Virtual Machine Specifications

CAD Enterprise Server

- 4 vCPUs
- 16GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) - Standard Edition, 64-Bit

Application Server

- 4 vCPUs
- 8GB Memory
- 100GB Virtual Disk (OS)
- 500GB Virtual Disk (Estimate - File Storage)
- Windows Server 2012 (R2) - Standard Edition, 64-Bit

Database Server

- 4 vCPUs
- 16GB Memory
- 100GB Virtual Disk (OS)
- 500GB Virtual Disk (SQL)
- Windows Server 2012 (R2) - Standard Edition, 64-Bit
- SQL Server 2012 - Standard Edition, 64-Bit

Decision Support Server

- 4 vCPUs
- 8GB Memory
- 100GB Virtual Disk (OS)
- 100GB Virtual Disk (SQL)
- Windows Server 2012 (R2) - Standard Edition, 64-Bit
- SQL Server 2012 - Standard Edition, 64-Bit

GIS Server

- 4 vCPUs
- 16GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) - Standard Edition, 64-Bit

Enterprise Security Server

- 2 vCPUs
- 4GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) - Standard Edition, 64-Bit

Mobile Server

- 2 vCPUs
- 4GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) - Standard Edition, 64-Bit

CAD Enterprise Test/Training Server

- 2 vCPUs
- 8GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) - Standard Edition, 64-Bit

Application Test/Training Server

- 2 vCPUs
- 4GB Memory
- 100GB Virtual Disk (OS)
- 500GB Virtual Disk (File Storage)
- Windows Server 2012 (R2) - Standard Edition, 64-Bit

Mobile Test/Training Server

- 2 vCPUs
- 4GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) - Standard Edition, 64-Bit

VMware vCenter Management Server

- 4 vCPUs
- 8GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) - Standard Edition, 64-Bit

Message Switch

System Hardware

IBM POWER 8 Model S814 8286-41A - 4U Form Factor - Primary

- PCIe2 LP 4-Port 1GbE Adapter
- (2) 300GB 15K-RPM SFF SAS Disk Drives
- Primary OS - AIX
- 32GB System Memory
- Power GXT145 Graphics Adapter
- (2) 900W AC Power Supplies (Primary & Redundant)
- SATA Slimline DVD-RAM (System Backup)
- (2) 6' Power Cords, 125V, 15A - Plug Type #4
- Chassis with One Processor Planar
- 4 Core 3.02GHz POWER 8 Processor Module
- Language Group Specify - US English
- Rack-mount Rail Kit

IBM POWER 8 Model S814 8286-41A - 4U Form Factor - Backup

- PCIe2 LP 4-Port 1GbE Adapter
- (2) 300GB 15K-RPM SFF SAS Disk Drives
- Primary OS - AIX
- 32GB System Memory
- Power GXT145 Graphics Adapter
- (2) 900W AC Power Supplies (Primary & Redundant)
- SATA Slimline DVD-RAM (System Backup)
- (2) 6' Power Cords, 125V, 15A - Plug Type #4
- Chassis with One Processor Planar
- 4 Core 3.02GHz POWER 8 Processor Module
- Language Group Specify - US English
- Rack-mount Rail Kit

System Software

IBM POWER 8 Model S814 8286-41A - Primary

- IBM AIX Express Edition Ver. 7.1
- Per Processor Activation, 4 Core
- DVD Process Charge

IBM POWER 8 Model S814 8286-41A - Backup

- IBM AIX Express Edition Ver. 7.1
- Per Processor Activation, 4 Core
- DVD Process Charge

Workstation Specifications

Call Taker/Dispatcher Workstation

- Intel Core i7 Processor
- Windows 7 Professional / Windows 8.1 Professional
- 8GB System Memory
- Keyboard, Mouse, DVD-ROM
- 25GB Available Hard Drive Space
- Integrated GB Ethernet
- Integrated Audio w/External Speakers (Audible Alerts)
- (3) 19" / 21" Flat Panel Color Monitors - DVI/DP
- Dual/Quad Port Graphics with 2GB Memory and Shader Model Graphics

Mobile Data Computer

- Intel Core i5/i7 Processor
- Windows 7 Professional / Windows 8.1 Professional
- 4GB System Memory
- 25GB Available Hard Drive Space
- 13.3" LCD Display (Touchscreen Optional)
- Backlit Keyboard, DVD-ROM
- Optional Integrated 4G/LTE Mobile Broadband w/GPS

Windows Tablet

- Intel Core i5 Processor
- Windows 8.1 Professional
- 4GB System Memory
- 64GB Storage Capacity (SD/Micro SD)
- 10.1" 1920 X 1200 LED Display
- WiFi 802.11a/b/g/n
- Optional Integrated 4G/LTE Mobile Broadband w/GPS

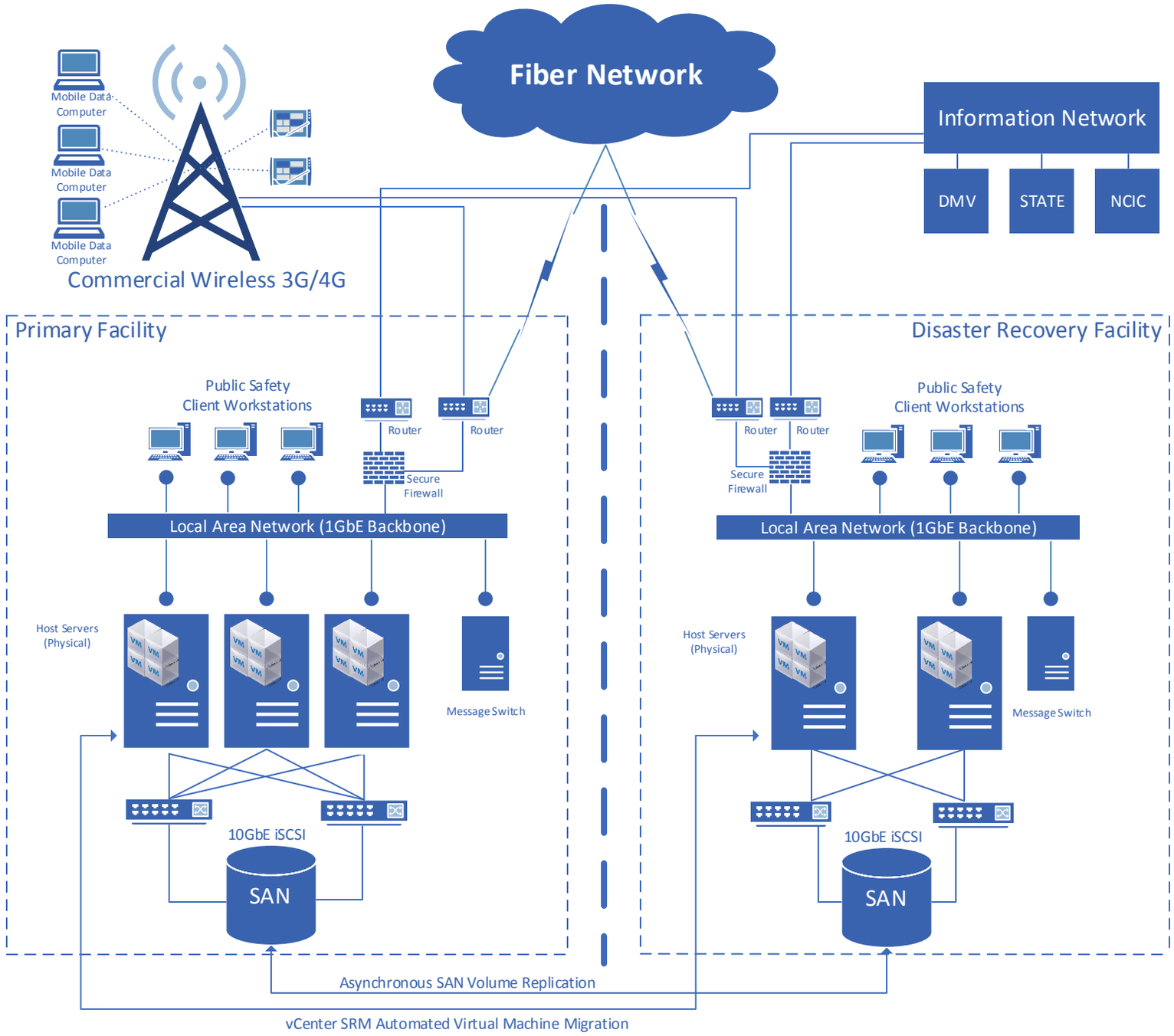
Hardware System Diagram

Please see attached.

COUNTY OF SAN MATEO, CA

New World Public Safety – Sample System Configuration (Disaster Recovery)

VMware Virtual Infrastructure



VIRTUAL MACHINES

CAD Enterprise Server
Application Server
Database Server
Decision Support Server
GIS Server
Enterprise Security Server
Mobile Server
CAD Enterprise Test/Training Server
Application Test/Training Server
Mobile Test/Training Server
vCenter Management Server

Diagram provided for illustrative purposes only. Hardware and network requirements may vary depending on the applications licensed and the customer's network environment.

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2.2 Uptime, Dependability and Performance

The proposed New World CAD solution was internally developed with performance and reliability in high volume CAD centers as a fundamental objective. The n-tier client/server architecture provides optimal system performance. The simple, elegant easy-to-use graphical user interface enhances productivity and transaction performance. All critical information is available at a glance. Data entry for all common functions is possible entirely from the keyboard without using the mouse.

The result of the robust n-tier architecture and optimized user interface design is that most CAD transactions occur in less than one second. The CAD workstation is never “frozen” or unavailable for any noticeable length of time because the main transaction processing runs on the CAD application server.

Most hot fixes or patches are applied without having to take the system offline. These are typically applied to the test system first and then rolled out to the production environment. Major release updates (generally one or two per year) may require a system restart and should be scheduled during non-peak hours.

2.3 Continuity of Operations and Disaster Recovery

The proposed 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 host cluster. 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. The average replication interval for change data synchronization between sites is 15 minutes, this is a function of the SAN replication software and configurable by agency. Site-to-site replication typically requires fiber connectivity (10Mbps or better) between the primary and backup sites.

3.0 Data Conversion

3.1 Tyler Conversion Experience

Tyler has a team dedicated exclusively to completing New World Data Conversion services for our customers. 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 more than 250 conversion projects since January 2006.

We have successfully converted from many and varied CAD, RMS, Fire RMS and Corrections Management systems, including Motorola, Northrop Grumman, SunGard/H.T.E., Tiburon, VisionAir, Logisys, Keystone, CISCO and DM Data/CPLIMS, as well as several smaller vendors and numerous homegrown systems.

Regardless of the system, there is a similarity to the kind of data maintained. 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.

3.2 Tyler Conversion Process

Because each new customer 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 customer. The data conversion process is truly a joint effort between Tyler and the customer. Tyler is responsible for developing, with the customer's assistance, the process that moves data from the legacy database to the New World software. The customer 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.

3.2.1 Detailed Conversion Process

During implementation of the RMS, the customer 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 customer site to review the modules to be converted as well as cover any questions about the data or data layout. At this time the customer will be familiar with the layout of Tyler's RMS 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 customer will receive a conversion analysis customer 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 customer time to assess the data conversion is minimized; however, it is important that a meeting take place between Tyler and the customer to review how the customer 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 on the following page.

3.3 Tyler Personnel Resources

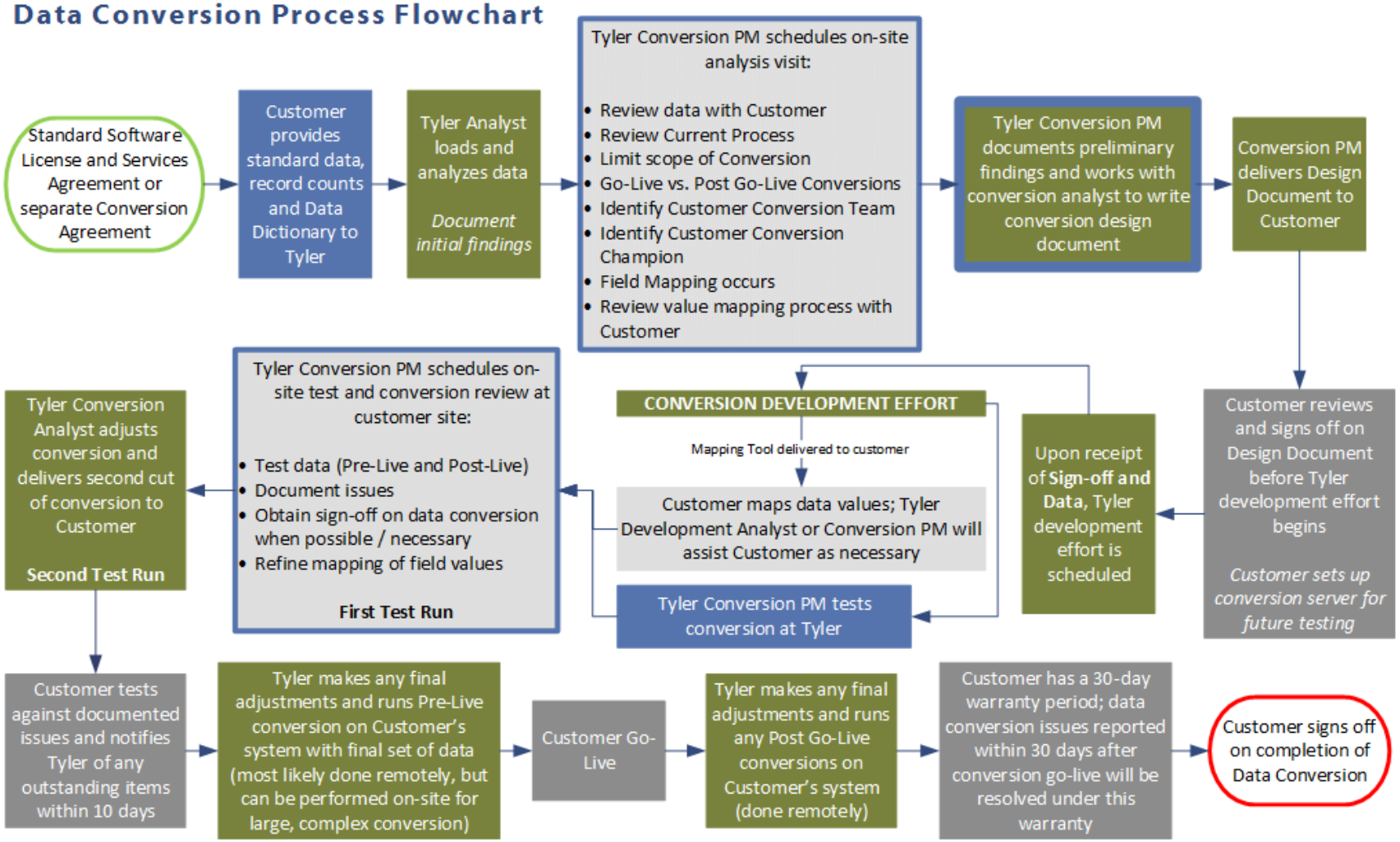
There will be two key Tyler team members involved in the conversion, a Solution Consultant and a Professional Services team member. The Solution Consultant will be responsible for developing the programs and scripts for moving the data into the Tyler database. The assigned Solution Consultant will work exclusively from our Public Safety 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 customer personnel be assigned. It is critical that customer 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. Customer 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 Conversion Process Flowchart



Assumptions

- Single data source
- Well-defined mapping
- Data conversion – NOT data cleansing
- On-site analysis and testing trips
- Dedicated on-site testing
- Identify Tyler PM and Customer Champion early
- Customer sign-off on design and completion
- Ideally all data is tested and ready prior to Go-Live

Definitions

- **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
- Customer
- Tyler Conversion Development
- On-Site

3.4 Customer 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 that 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.

4.0 Support and Warranty Information

Tyler's Support Team provides a key component of your proposed public safety software solution. Tyler understands that in order to retain "Customers for Life" we must do more than keep our software and services up to date with technology and industry trends and requirements. To keep customers satisfied over the long term, we must provide the superior ongoing support that our customers need to ensure that they get the most out of their solutions. After all, in the overall solution lifecycle, your relationship with the support team will likely be the longest. Our team of support personnel provides outstanding customer service and continuously works to ensure that our customers receive the utmost value and remain satisfied Tyler customers for years.

All Tyler standard application software includes a one-year warranty that begins upon delivery. This warranty can be extended by purchasing our Maintenance and Support Agreement. Our initial warranty and Maintenance and Support Agreement warrants your New World software and provides for comprehensive support. These services and benefits include:

- Access to your account management team
- Access to our customer support call center, staffed by qualified individuals who understand your operating environment; our customer service representatives will provide quick and accurate problem diagnosis and resolution using a direct connection to your system via WebEx
- Emergency after hours support for CAD, also available as an option for other applications; this service ensures that you can reach a Tyler customer support representative 24 hours a day, 7 days a week including holidays
- Online access to support information including software downloads, issue submission and tracking and software documentation
- New software releases provided upon availability
- Ability to provide direct input into the future development direction of your products
- Opportunities to participate in Tyler's active User Community, including our annual Customer Conference, regional User Groups and application-specific Advisory Groups
- Consistent communication with Tyler, including our newsletter

Tyler does not provide support services for computer hardware, local area networks or operating system software. These support services are available from computer equipment manufacturers and/or IT support firms.

The support team at Tyler strives to help each of our customers become expert users of their solution. They understand that each customer's solution is tailored to meet their unique requirements and work to build a relationship with each customer that includes an understanding of their system and operations. Not only does this help them provide better support to each customer on an individual basis, but it also helps them assist other customers with similar requirements or issues by leveraging the knowledge they have gained from similar customers. In this way, we seek to do more than help you keep the system up to date and performing properly, but to fully understand all the features the software has to offer and use them to their best advantage for your organization.

4.1 Account Management Team

Tyler employs a team approach to customer support. In addition to our world-class customer support center, Tyler surrounds our customers with a team made up of the following:

- **Customer Care Account Manager:** Responsible for working collaboratively with the Executive Sponsor, Technical Account Manager and services groups to ensure customer satisfaction with implementation and ongoing operations
- **Customer Support Account Manager:** Responsible for customer satisfaction and overall technical health of Tyler deployed products and services
- **Executive Sponsor:** Responsible and accountable for customer satisfaction with Tyler

4.2 Customer Support Call Center

The County's relationship with Tyler's support team begins as you transition from implementation to live operation. During the week of go-live, key County personnel will meet with Tyler's Customer Support Manager to introduce themselves and to establish an understanding of the services available and the procedures for accessing them. This includes providing telephone numbers for standard and after-hours support. The turnover call is an important step in establishing a good working relationship and setting appropriate expectations for the years to come. Tyler's standard hours for telephone support are from 8:00 a.m. to 8:00 p.m. Eastern Time, Monday through Friday.

The primary source of ongoing support for your public safety solution is our toll-free telephone support hotline. This line is answered by qualified Tyler employees and is reserved for customers only. Our toll-free phone support is designed for quick resolution of questions or issues that may arise as you put your software to use. A high percentage of all support questions are resolved using this method.

In addition to the toll-free number, issues may also be reported via email and our customer service portal.

The strength of Tyler's telephone support center lies in its superior staff, composed of individuals with detailed understanding of the applications' capabilities and often with experience in the field, installing the software and training users. Support personnel will have access to your system via WebEx in order to directly view any issue you may be experiencing and work on your problem as if they were actually present at your location. This facilitates clear communication and more timely issue resolution.

The Center is structured to provide three levels of support:

- ***Level 1*** consists of phone support provided by the initial call taker. Our call takers are trained in all our applications and most calls are resolved at this level.
- ***Level 2*** support is provided for more complicated issues that may need to be referred to a specialist with more detailed knowledge of a particular application.
- ***Level 3*** support issues are more complicated and require reprogramming. In this case, the support team will work directly with our development team to develop the appropriate software patch or update as required.

Because all support and development for our New World applications takes place at our Public Safety headquarters, these teams work together to best meet the needs of our customers.

Tyler does not limit access to our telephone support to a particular user. However, our customers generally find it most efficient to have a few application experts and system administrators maintain the most frequent contact with our support team. This leads to established working relationships and helps eliminate miscommunications and duplicate calls regarding the same issue.

4.3 Standard Support Hours and Response Time

Tyler's standard support hours are from 8:00 a.m. to 8:00 p.m. Eastern Time, Monday through Friday. During that time, we strive to answer 85 percent of all calls within 2 minutes and respond to 90 percent of all emails within 48 hours.

Our agents solve approximately 70 percent of cases during the initial contact.

4.3.1 Case Tracking

Tyler uses Salesforce Service Cloud as our customer relationship management, case tracking and knowledge base system. Salesforce is a leader in the industry with over 100,000 customers, including Dell, Comcast and BMC Software.

When you contact the call center, our agents have immediate access to all the 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 the support 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.

The customer support team solves approximately 70 percent of cases during the initial phone call. Cases that cannot be closed immediately are prioritized based on the severity of the issue. You will receive regular updates from our agents as they work on your cases.

Tyler defines severity as follows:

Severity	Nature of Issue	Response Time
P1	An error, defect, fault, performance degradation, operation or malfunction which renders the standard software inoperative; causes the software to fail catastrophically, or otherwise severely degrades the performance of the software	30 minutes
P2	An error, defect, fault, performance degradation, operation or malfunction that moderately degrades the performance of the standard software, but does not prohibit use of the software	2 hours

Severity	Nature of Issue	Response Time
P3	An error, defect, fault, performance degradation, operation or malfunction that causes only a minor impact on the use of the standard software	8 hours

Salesforce provides a variety of reports and automated workflows to monitor and escalate cases to ensure that your issues are addressed quickly and in the correct order.

Service Cloud also provides a customer portal that allows customers and Tyler teams to collaborate on and track support issues and reported warranty. Customers may access their Service Cloud items via the MyNewWorld website. The portal also allows users to search online for answers, view case updates to track the progress of an issue, share answers and ideas across the user community and update contact and release level information as part of a customer self-service portal.

4.4 Emergency 24/7 After Hours Support

In addition to the service provided during standard support hours, Tyler provides 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 your system operational in the event of Tyler software issues that arise outside of standard support availability.

Emergency/24x7 support provides you with the ability to reach a Tyler support representative for assistance after hours or on weekends or holidays. To access this support, customers call a special toll-free number that enables them to reach a Tyler support representative – this is not a voicemail system, but a live person answering your call. The support representative will be able to address your issues, including connecting to your system to examine the problem, if necessary.

4.5 Online Resources

MyNewWorld, our customer service website, provides access to valuable information and services 24 hours a day, 365 days a year.

From MyNewWorld, our customers can:

- Access the Customer Service Portal
- Upload and download files using our secure file transfer protocol (FTP) service
- Download software releases
- Access product documentation
- View our newsletters
- View product FAQs and catalogs
- View upcoming events and product announcements

4.6 Customer Service Portal

The Customer Service Portal, which is available on the MyNewWorld site, allows customers to create, edit and manage support and warranty cases 24 hours a day.

It provides a quick and easy way for our customers to report issues. By simply completing an online form, a case is created and sent to our customer support team. The user is given a case number that can be used to reference and track the case. The user also has the ability to attach files to provide more detailed information regarding the case, such as screen shots and log files.

The Case List pages allow customers to view all cases that have been reported, whether they were created using the portal, emails or phone. The portal provides several predefined, sortable views that allow users to quickly find and organize their cases. The search feature can also be used to locate cases based on keywords.

From the Case List pages, individual cases can be opened to show the status and activity on a case. The user can also edit the case to change the status, provide updates or more detailed information and attach additional files.

The Customer Portal also hosts the New World Knowledge base, a searchable collection of knowledge articles designed to allow customers to find information and solve problems on their own. Currently, the knowledge base contains the following types of documents:

- Frequently Asked Questions (FAQs)
- Alerts
- Release-related materials

4.7 User Community

4.7.1 Annual Conference

Each year Tyler hosts a national conference open to all New World Public Safety customers. We strive to make the customer conference an event that provides significant benefit to all attendees, including executives, system administrators and end users. This includes software training and updates, technology updates and networking opportunities.

The primary focus of the conference is to provide educational opportunities for our customers, 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. Due to increasing popularity, Tyler is also expanding our "Technology Track" sessions, which are geared toward IT staff and include topics such as virtualization and SQL Server Management. Another important aspect of the conference is the unique opportunity it provides for networking. Customers have the chance to meet colleagues from across the country and schedule one-on-one meetings with Tyler personnel. Customers also have the option to set the agenda by participating in an "Open Topic Forum." Finally, the conference is yet another opportunity for our customers to provide suggestions for future development initiatives during the focus groups and roundtable sessions.

Approximately 800 people representing 200 customers attended last year's conference in Dallas, Texas.

4.7.2 Regional User Groups

Many Tyler New World customers have formed regional user groups throughout the country with the goal of sharing information related to their public safety solutions, especially related to state or local concerns. The user groups are governed by the customers themselves rather than Tyler and are typically held at customer sites. When the user groups plan their meetings, they work together 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 or twice annually, sometimes in conjunction with Tyler's Customer Conference. Some of our Regional User Groups include:

- Alabama
- Arizona
- California
- Connecticut
- Florida
- Georgia

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

5.0 Company Background

Tyler Technologies, headquartered in Plano, Texas, is a leading provider of information management solutions and services to local governments. The company provides software and services to more than 13,000 local government offices throughout all 50 United States, the U.S. Virgin Islands, Canada, Puerto Rico and the United Kingdom. These mission-critical applications provide the public sector with the ability to streamline and automate operations resulting in improved productivity and reduced costs.

With decades of exclusive public sector experience, Tyler is the market leader that provides integrated software and services; our singular-focus subject matter experts and in-depth products result in a sustainable client partnership that delivers the industry's most comprehensive solution. We provide the industry's broadest line of software products and offer clients a single source for all their information technology needs in several major areas: Financial and Human Resources, K-12 School Solutions, Public Safety, Courts and Justice, Property Appraisal and Tax, Pension Management, Citizen Services, Land and Vital Records, and Document Management.

We are known for long-standing client relationships, functional and feature-rich products and the latest technology. In addition to software products, Tyler provides related professional services including installation, data conversion, consulting, training, customization, support, disaster recovery, and application and data hosting.

Tyler always puts its clients first. We succeed because we take our client's success seriously, and we have a proven record of delivering superior software solutions and services. The overwhelming majority of clients are up and running on time and within budget. Whether it is developing, enhancing and implementing our software or providing excellent service and client support, we succeed because our clients succeed. We want clients for life. In fact, many of Tyler's first clients, across every solution, are still clients today – some with relationships that span decades.

5.1 Public Sector Focus

Tyler's business units have provided software and services to customers for more than forty years and have long-standing reputations in the local government market for quality products and customer service. Tyler is the largest company in the United States focused solely on providing software solutions to the public sector. While many of our competitors compete in multiple vertical markets, Tyler is singularly focused on the public sector. It's 100 percent of our business.

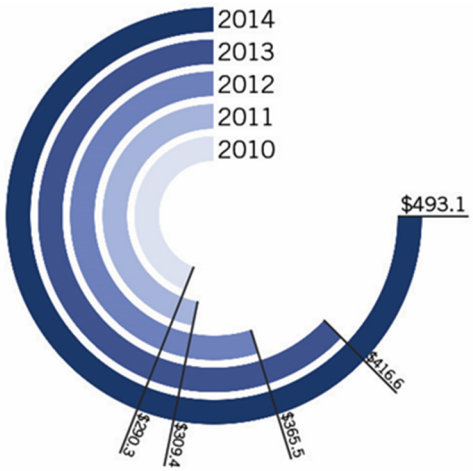
Tyler recognizes that the public sector is generally stable and risk averse and craves community accessibility, security and transparency. That is why local government and school entities seek reliable and efficient software and services from Tyler—a vendor who is professional, reputable and dedicated and achieves results. Tyler has the experience to understand the unique requirements of the public sector, the necessary resources to invest in its products, and the ability to deliver quality services.

Tyler's expansive offering of professional services is designed to complement its software offerings and produce the optimum working environment for local government customers.

- Consulting
- Conversion
- Customization
- Training
- Live ongoing support
- Network management

5.2 Financial Stability

Tyler consistently maintains a solid balance sheet, strong cash flow and low debt, experiencing consistent revenue growth with 56 consecutive quarters of profitability, and total revenue for 2014 of $493.1 million.



While experiencing significant growth opportunities from an increase in staff and expanding territories, we anticipate additional product offerings and new technology will accelerate this growth substantially in the future. We believe that a debt-free balance sheet, substantial cash reserves and a committed customer base put Tyler in a great position in our industry to weather any unexpected turbulence in the economy.

For additional revenue information please visit www.tylertech.com.

5.3 Industry Leadership

Tyler strives to provide the best client services in the industry. Our products undergo testing by trained quality assurance and certified usability analysts, so our clients benefit from products that work logically based upon user experience and input. We also focus our implementation and support professionals on specific groups of applications so that they are able to offer more specialized services.

Our commitment at Tyler is to ensure the highest level of client satisfaction through the efforts of Tyler's most valued resource: our people. We challenge our employees to pursue new initiatives aggressively and to become industry leaders in their respective fields. Tyler employs more than 2,900 individuals, many of whom are seasoned professionals with unique and proprietary skills and years of industry experience. In fact, our employee turnover rate is very low—in recent years, about half of the industry average.

5.4 Company Recognition

Tyler has again been included on Software Magazine's Software 500 ranking of the world's largest software and service providers for 2014. "We are honored to be recognized for the seventh straight year by Software Magazine," says John S. Marr Jr., president and chief executive officer of Tyler Technologies. "We have served the public sector with proven software and services for many decades and we are pleased to continue partnering with a growing portfolio of local government and school clients who rely on Tyler to help meet operational goals."

The ranking is based on total worldwide software and services revenue from the 2013 fiscal year. This includes revenue from software licenses, maintenance and support, training and software-related services, and consulting. Suppliers are not ranked on total corporate revenue, since many have other lines of business such as hardware. Financial information is gathered by a survey prepared by Rockport Custom Publishing, LLC, using public documents and company input. It is published in print as well as posted online at www.softwaremag.com as both a digital edition and searchable database.

Tyler Technologies, Inc. has been named to Forbes' 2014 list of Best Small Companies in America. Company rankings are based on earnings growth, sales growth and return on equity in the past 12 months and over five years, as well as a comparison of a company's stock performance with that of its peers.

Tyler Technologies has also been named to the 2014 Solution Provider 500 (SP500) list by The Channel Company's CRN platform. The list ranks the top revenue-generating technology integrators in the United States and Canada whose forward-thinking approach has helped them evolve and thrive in today's cloud and services-driven IT era. The list spans eight categories from hardware and software sales to managed IT services. Tyler has been recognized for 11 consecutive years.

These achievements point to our position at the top of the public sector software industry and our commitment to our clients. And because we are committed to delivering the best products and services to our clients, we are dedicated to continually evolving to help our valued clients meet the challenges they face every day.