

Public Safety Software Solutions

Assisting software providers and agencies with custom integrations and solutions

Challenges:

- ✓ Your requirements are unique. The off-the-shelf products won't do - or they don't even exist. You need a reliable, usable, customized software solution.
- ✓ You need two or more software applications integrated and sharing data to reduce duplication of entry and increase automated exchange of data. You need a reliable, dependable, customized, integrated solution.
- ✓ You need to solve the problem on time and within budget.

Concerns:

- How do you choose the developer?
- How can you be sure that the time and money invested will be well spent?
- How do you ensure that your problem gets solved right the first time?

Solution:

The success of your software solution depends on the caliber of the solutions team. Dependable, easy-to-use applications and integrations come only from experienced professionals. It's that simple! CommSys, Inc., has over a decade of experience solving software-based problems in the public safety industry. By designing, developing, and deploying custom software applications and solutions aimed directly at solving the public safety workflow challenges, we have gained an extensive breadth of knowledge that assists us today in providing low cost, timely solutions.

Comprehensive solutions to solve real-world problems require leading technology and an expert team. CommSys's software solution team provides both, offering service contracts for custom software development, including application programming, database integrations and conversions, communication integrations, web applications, and wireless applications. CommSys provides programming expertise in .NET, C, C++, Visual Basic, Java, PHP, and ASP as well as in-depth expertise in database design and integration, conversion, and reporting. From software design to prototyping, implementation, testing, deployment, maintenance and enhancements, put CommSys's experts to work when and where you need them most!

Public Safety Software Solutions Description

If you are in the market for custom software development, integrations, or Web-based applications, CommSys has many years of experience that can work for you! We can provide complete "turn-key" solutions specific to your needs, or use our expertise at the level where it's needed. We can work within your overall plans. Whether your needs are to supplement current development or to have CommSys develop an entire software package, it would be our pleasure to help with new or ongoing projects, including analysis, design, coding, testing and implementation. It's all possible!

We provide solutions with many of the following tools:

Microsoft Windows	C	JAVA Script	RIM BES Framework
Linux	C++	PHP	Crystal Reporting
Unix	C#	Visual Basic	Legacy Platforms
SQL	.NET	Visual Basic Script	Communication & Network Protocols
Oracle	JAVA	ASP	Legacy Integrations
Other relational databases	J2EE	C# Compaq framework	Private Radio Networks

CommSys public safety software solutions will complete the circle. We have successfully implemented custom solutions for the following processes: AVL Vehicle Tracking; State, National, Regional and Local Crime Information Computer (CIC) Integrations; State CIC Conversion Modules; Database Conversions; MSAG/ALI Address Management Applications; 911 ANI/ALI Stand Alone Database Systems; various integrations to local and regional databases; software applications to convert communication protocols; mobile applications platform for RIM handhelds; document management systems; employee tracking and scheduling; project management for on-site implementations; and Web-based applications.

Our steps to create successful solutions are as follows:

- **Step 1: Create a Summary and Overview with Company Goals**
 - People · Skills · Equipment · Processes
- **Step 2: Discovery and Requirements Gathering**
 - Research / Interviews · Documentation · Review
- **Step 3: Preliminary Architecture and Design**
 - Look and Feel/Navigation · Flow Charting · Data Model
- **Step 4: Detailed Design Development**
 - Presentation and Business Logic
 - Data Access/Search
 - Final data and screen layouts
 - Prototype
 - Solution
- **Step 5: Infrastructure Upgrades**
- **Step 6: Testing and Acceptance**
 - Test solution using load, performance, and stress tests
 - User testing and feedback
- **Step 7: Data Importing**
- **Step 8: Implementation and Training**
- **Step 9: Ongoing Support and Enhancement**

Public Safety Software Solution Examples

CommSys has completed various solutions tailored to solve a specific agency challenge. The following are some examples of solutions we have provided which demonstrate our depth of experience and expertise:

- [AVL Vehicle Tracking Solution](#) – The Allen County Ohio Sheriff's Office needed a low-cost mapping solution utilizing their current private radio infrastructure to track vehicles

and help reduce their response times. The agency was interested in leveraging their existing CAD and mobile investment but was budget constrained for available solutions by each respective vendor. Using the full-featured CommSys CommandView™ mapping product along with the CommSys PacketCluster® Mobile Connector™, the agency was able to integrate real-time mapping into their existing environment with minimal modifications. The software, written in C++ and integrated with MapInfo's MapX engine, was developed as a client/server solution with optional web connectivity extensions to allow public safety agencies to locate and manage their units. Since CommSys was able to leverage the existing county ESRI shape files, integration of the software was extremely easy.

- Standalone E911 ALI System – To significantly reduce costs from their E911 budget, Beaufort County, South Carolina, contracted CommSys to provide a self-hosted, redundant ALI system to support the Public Safety Answering Points serving Beaufort County and Hilton Head Island. The system, running continuously over the past 5 years, is composed of a geographically distributed dual-node cluster that maximizes uptime, provides excellent performance, and integrates with the unique data needs of the county by virtue of supporting both NENA and non-NENA data streams. Most importantly, the system significantly reduces the cost involved in having telephone companies manage the address databases themselves. The system was recently upgraded to support wireless Phase II and CommSys was further tasked, via letter of agency, to represent Beaufort County in the planning, management, coordination, and deployment of wireless Phase II. CommSys's industry and project management resources have a tremendous knowledge base to allow them to navigate through the complex E911 environment finding ways to reduce recurring costs with intelligent solutions.
- MSAG/ALI Address Management System – In realizing the cost savings of self-hosting their ALI database, Beaufort County, South Carolina, 911 also discovered the challenges presented in having internal staff manage the addressing process for the County. The role of an address administrator included major activities covering large-scale coordination, tracking, and management of address data across several organizations including GIS departments, landline companies, wireless operators, county government, and the citizen population. If a 911 address was incorrect, the task of resolving the issue faced enormous difficulty due to the complexity and volume of data that could pass through an ALI system on a daily basis. CommSys was engaged to help simplify the process for internal staff and design workflows that would allow the county to become the authoritative entity for address data. The CommSys Address Management System was developed as a web-based application that could be extended to allow both public and private access to address data records and serve as a central repository for changes throughout the county.
- Policy Management System – The Clark County Ohio Sheriff's office needed a way to audit and validate staff acceptance of departmental policy and procedure documents. This need was important to comply with local, state, and federal authorities and insure that employees read, understood, and accepted policies that covered sexual harassment, nondiscrimination, and other pertinent department rules and regulations. CommSys delivered a web-based policy management system that provided an online mechanism to read, understand, and accept policy documents. In order to gauge policy comprehension, the system would quiz employees covering the just-read policy. If a user were to pass the quiz, the system would create the necessary audit records and print a certificate indicating successful policy acceptance, otherwise, the user would be forced to re-read the policy. The system, developed on a Windows 2000 platform, is flexible, allowing new policy documents to be entered and managed by administrative staff; easy to use, so that administrative users could create the sample quizzes; and auditable, to allow verification of policy acceptance at a user level. CommSys's domain knowledge helped in providing just the right solution for the sheriff's office.

- Project Management and IT Support – CommSys provided Miami County Communications Center (MCCC) in Troy, Ohio, with project management and IT expertise during the conversion of their Tiburon Public Safety Computer Aided Dispatch (CAD), Police Records Management System (RMS) and Mobile Data Computer (MDC) system to a complete SunGard HTE System. CommSys was engaged by the county to provide project management representing MCCC during the conversion and integration process and to manage and provide implementation resources to bring the basic IT infrastructure of the facility up to the level necessary to support the requirements of the new system. One of the key aspects was to upgrade the overall Center and systems security to meet the FBI's requirements for Law Enforcement Information Systems. CommSys worked directly with MCCC and the vendors to assist with managing deliverables, setting expectations, ensuring quality, and keeping the project on schedule and to task.
- Legacy Communication Conversion – Hamilton County, Ohio, purchased a mobile platform provided by Aether Systems for use with their Motorola environment. The county had a timeframe that necessitated they leverage their existing backend infrastructure which included a customized PRC CAD system coupled with interconnections to the LEADS system for state and NCIC inquiries and the area's Regional Crime Information Center System (RCIC). In addition, the rollout strategy of the new mobile platform had to include interoperability with existing Motorola MDT9100 mobile units. Hamilton County and Aether Systems turned to CommSys to provide a solution to the interconnectivity challenge. To answer the challenge, CommSys developed the RTX/TX™ product module that provides a central gateway for all communications involved. The product could emulate the Motorola FLM protocol to transact messages between the MDT9100s and the PRC-based backend. It could also convert Aether mobile inquiries into FLM-oriented messages to allow Aether mobile users to transact CAD, NCIC, and RCIC queries against the same backend as well as support interaction with the other MDT9100 units. CommSys's domain knowledge in middleware solutions, specifically for public safety environments, allowed the overall project to be successful so that roughly 800 units across 12 different departments could perform their public safety activities routinely and effectively.
- Database Conversions – SmartCOP Inc., a national CAD/RMS/Mobile vendor, had a need to convert and consolidate data from existing CAD/RMS systems for Wilson, North Carolina. The city, with two law enforcement departments having separate enterprise systems, one provided by SunGard HTE with roughly 5 million records, the other provided by VisionAIR with roughly 1 million records. When SmartCOP needed to perform the conversion, they turned to CommSys for their expertise in data conversion and integration technologies. CommSys took the data schemas of these three entirely different products and performed data conversions, translations, mappings, and calculations to consolidate all data into a SmartCOP environment. RMS data files from both systems included arrest, warrant, offense, field interview, master name, master vehicle, business, pawn, registrations, etc. The VisionAIR Jail system and a Digital Descriptors mug shot system were also part of the conversion process. In total, approximately 240 tables in 4 different databases were converted to 150 tables in approximately 20 different databases. CommSys worked directly with the city staff to understand and coordinate conversion activities. With Microsoft certified database experts, CommSys was able to leverage our broad horizontal database expertise to solve deep vertical data challenges in public safety.
- Mobile and in-house access to local, regional, and state crime information – CommSys provides a standard product, ConnectCIC™, which can be integrated with any CAD/RMS/Mobile product offering to provide an agency mobile and in-house access to state, regional, and national crime information computers (CIC). If your CAD, RMS or

Mobile vendor is not yet providing query and edit access for you today, introduce them to CommSys and tell them about our product offering. We can provide them information on our program and product to help them provide you a quick, low-cost, supported, easy to maintain solution.

- Access to local, regional and state crime information – The Honolulu Police Department was interested in enabling their existing PacketCluster® mobile solution to connect to two local and one national law enforcement crime information computer. The site had incorporated a new Datamaxx switch to access NCIC data but also wanted to access their local IBM 3270-based Department of Transportation mainframe for registration inquiries and also their SQL-oriented Offender-Based Transaction Statistics (OBTS) database for criminal history. The police department tasked CommSys to write an interface integrating these data sources and allow queries by officers in the field using the PacketCluster® Patrol™ product. CommSys produced a sophisticated middleware solution that provided store-and-forward messaging ability, automated navigation of complex 3270 screen workflow, and integration into a clustered environment. CommSys, currently supports the 1,200 mobile units in Honolulu to insure the officers have access to the most important data at the most critical times. CommSys's extensive software development experience was highlighted in the need to access both legacy and modern data sources to solve system challenges for busy police departments.
- Regional County Message Switch – CommSys worked with Ventura County, California, to enhance and maintain their county level CLETS (California Law Enforcement Message Switch) message switch to allow regional agencies to transact California law enforcement queries over the state system. Mobile and terminal users were able to submit and receive any of the transaction support directly from CLETS. The system, written in Java and running in a clustered environment, was integrated with a Sybase database for proper routing, auditing, and printing. The project also illustrates some of the middleware expertise CommSys has in working with widely different environments.

Key Benefits

The CommSys Public Safety Software Solutions provide many benefits, such as the following:

Provides problem solving, high-valued solutions. CommSys provides customized software and integration, networking and Internet services that focus entirely on solving your workflow challenges. Our engineers and IT personnel are seasoned, skilled professionals. We have experience depth in deciphering workflow inefficiencies to draw upon to answer your needs quickly and efficiently, while focusing solely on solving your challenges in the most cost-effective and efficient way possible.

Recognize a quick ROI. CommSys is cognizant that solutions need to start demonstrating their value immediately. Therefore, we design and implement solutions that are user-friendly, reduce costs, improve productivity, and provide access to more valuable information, so your organization can see a return on your investment quickly.

One place to meet multiple needs. With CommSys you can work with one company to assist you with a variety of IT needs. Not only can we offer you custom development, but we also offer end-to-end assistance from requirements gathering to project management to implementation to on-going support.

About CommSys

Commsys, Inc. is dedicated to maintaining our position as a leader in providing high quality and value-added software and solutions to government and businesses through a staff of highly trained, professional people sharing a tradition of integrity and quality service with our customers.

Since 1989, CommSys, Incorporated, headquartered in Dayton, Ohio, and privately held, has been developing and implementing innovative technology that provides our customers with intelligent solutions for today's rapidly changing, intensely competitive environments in government and business. CommSys has over 10 years of experience in providing solutions and services for public safety software vendors and state, county, and municipal agencies across the nation. We have developed innovative solutions that are cost-effective when no other options seemed possible.

In a world driven by fast-changing information technology, our people make all the difference. By teaming with CommSys, you benefit from the unmatched expertise of our IT professionals. They apply their incredible depth of experience and combine that with broad technical knowledge of IT systems and software to deliver the right products and solutions to optimize your workflow and solve your strategic and tactical organizational challenges.

Contact Us

Contact us today to request a quote or to acquire additional information!

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