



SYSTEMS INTEGRATION/MODELING & SIMULATION, INC. (SIM&S)
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// SIM&S-developes collaborative tools that permit customer access to latest program documentation throughout the lifecycle of the project... //

Computer Engineering

Engineering services at our office or yours

SIM&S has designed sophisticated software systems since 1992, we provide cost effective custom integration, training and maintenance. SIM&S has implemented numerous 911, Computer-Aided Dispatch (CAD) and Help Desk systems supporting government customers and created telecommunications monitoring systems to automatically page technicians when user-defined events are detected. The following outlines our expertise in engineering services.

PROJECT MANAGEMENT

Project management is key to the success of any engineering project. In addition to years of practical experience, we have staff members holding Department of Defense Acquisition Professional Development Program certifications in Program Management at Levels II and III. Projects are fully planned, documented and tracked using state-of-the-art automated tools. SIM&S-developed collaborative tools permit customer access to latest program documentation throughout the lifecycle of the project and enhance project-related communication and the SIM&S accounting system facilitates detailed reporting.

REQUIREMENTS ANALYSIS AND DEFINITION

We start with well-defined specifications. We participate with the customer in requirements elicitation, definition and documentation. Through workflow analysis and process re-engineering modeling, we identify, consolidate and refine processes. **We employ "As-Is" and "To-Be" modeling to clarify expectations, system requirements and processes.** This guides implementation throughout the project. During requirements definition, SIM&S leverages its extensive operational experience to ensure total lifecycle cost parameters are considered for optimal solutions. Our computer network, security, Help Desk and telecommunications experience gives us valuable insight into post-deployment support requirements.

When working from customer specifications, SIM&S allocates requirements to subsystems and components, performs trade studies and identifies components for development. Our experience with a variety of network components, network management tools, emergency dispatch systems, communications and alarm and control

systems keeps us current with industry trends in these domains and guides requirements allocation and conceptual design activities.

DESIGN, DEVELOPMENT AND INTEGRATION

We design, develop and integrate system components. We identify areas of risk and test high risk components and interfaces early in lab environments to mitigate schedule delays and to provide opportunities for rework without impact. SIM&S works closely with component vendors to ensure on-time delivery and compatibility. **We employ sample data** to closely mimic the operational environment and ensure saleable requirements are satisfied.

SIM&S brings a unique perspective to systems engineering as a result of our extensive systems experience. We write system documentation with the needs of the operator and/or maintainer in mind. Similarly, we develop system training to ensure the proper mix of engineering detail and incorporate step-by-step procedural content.

FIELDING AND POST-DEPLOYMENT SUPPORT

After a site survey and analysis of engineering standards, unique local conditions and system interface requirements are determined we **perform system installation at customers' location.** A team of SIM&S and vendor personnel execute this in coordination with host installation personnel. Installation may include both an in-brief and out-brief with those personnel. We test and validate systems against specifications to ensure compliance and operational capability. Implementation support for 911 and CAD systems may include development, documentation, and delivery of Automatic Location Identification databases and data to be integrated into Geographic Information Systems.

If the customer desires, SIM&S provides lifecycle support for engineered systems. Through workflow analysis and process re-engineering modeling, we identify, consolidate and refine processes for our customers, creating cost savings. We provide software maintenance support for systems we have integrated, to include software upgrades and enhancements further refining and automating processes.