



### Capability/Area of Expertise

- Engineering, System Engineering, and Process Engineering Support
- Modeling, Simulation, Stimulation, and Analysis Support
- Software Engineering, Development, Programming, and Network Support
- Human Factors, Performance, and Usability Engineering Support
- Quality Assurance (QA) Support
- Information System (IS) Development, Information Assurance (IA), and Information Technology (IT) Support
- Public Affairs and Multimedia Support

### Experience/Services Delivered

<b>Contract Support</b>	<b>Agency</b>
<b>Military Health System (MHS) Data Repository (MDR) Software Engineering, Development, Programming, and Network Support</b>	<b>Defense Health Agency (DHA), Defense Health Services Systems (DHSS)</b>
<p>Served as the sole provider for code maintenance on the Military Health System (MHS) Data Repository (MDR). TMCI developed the software, using Software Development Lifecycle Model (SDLM) standards, and has successfully implemented the system for the past several years. Under this contract, TMCI performed the following tasks:</p> <ul style="list-style-type: none"> <li>• Completed design based on requirement and provided design documentation for review</li> <li>• Developed changes to the software, based on the agreed upon design specification</li> <li>• Tested both system and development timeframes while conducting acceptance testing</li> <li>• Worked with the DHSS to plan and conduct software performance tests to identify any performance issues</li> <li>• Used the DoD template and supplied revised Software Configuration Management Plans</li> <li>• Updated Software Test Plans for each version</li> <li>• Kept the Data Dictionary updated with changes to tables and/or fields within each table used by the government</li> <li>• Provided version release support each time a version was accepted by the government and helped technicians release and load Commercial Off the Shelf (COTS) software packages. Provided telephone support of the release implementation throughout the configuration management process</li> <li>• Used the SDLM in the development processes to ensure quality-programming efforts</li> </ul>	



<b>Tier III Trouble Ticket Triage Support</b>	<b>TRICARE Management Activity (TMA)</b>
<p>TMCI developed processes and procedures used to protect the patient safety and data integrity of the MHS Clinical Data Repository (CDR) under the Tier III contract with TMA. Prior to TMCI's efforts, nearly one-fifth of the CDR's 9.6 million patient records were fragmented, separated, multiplied, and/or crossed. TMCI's custom designed criteria for matching patient accounts within and across source systems allowed for development, testing, and deployment on an operations system that merged over 1 million records over five years. TMCI also investigated and reported on missing and fragmented patient information caused by the amalgamation of the VA and DoD Electronic Health Records (EHR) by Bidirectional Health Information Exchange (BHIE) and TRICARE Online (TOL).</p>	
<b>Modeling, Simulation, Stimulation, and Analysis Support</b>	<b>Army National Guard Manpower Division</b>
<p>TMCI analyzed existing databases and designed, developed, integrated, tested, and implemented model services for the initial ARNG Voucher Model software applications. Analysis identified: end-user requirements; hardware and software constraints; and system interface requirements. We examined segments of the core processes and developed a detailed conceptual model of the business area. The model included entity relationships, process diagrams, diagram flows, procedures, dialogue box and window layouts, and action diagrams. After considering hardware requirements, operating systems, user interface requirements, and database management systems, we tailored the model to the physical computing environment and generated the executable code necessary to field the business system to the operating environment.</p>	
<b>Human Factors, Performance, and Usability Engineering Support</b>	<b>Army National Guard Manpower Division</b>
<p>TMCI provided Management and Organizational Analysis services to the ARNG Manpower Division consisting of:</p> <ul style="list-style-type: none"> <li>• Conducting price/benefit analyses</li> <li>• Conducting work flow analyses</li> <li>• Developing productivity measures for operations and outcomes of various programs and conducting analyses to determine productivity of program components</li> <li>• Developing methodologies for the determination of staffing needs and allocation of assets for the NGB organizations</li> <li>• Developing modeling applications to assist in projecting the establishment of goals</li> <li>• Documenting best practices and developed guidance documents and manuals to provide improved performance</li> </ul>	
<b>Public Affairs and Multimedia Support</b>	<b>Army National Guard Bureau</b>
<p>TMCI's resources, expertise, and experience allowed for implementation of comprehensive and effective communication and community involvement programs. We prepared communication materials that presented complex technical subjects clearly and concisely to all types of audiences. Our informational support services included:</p> <ul style="list-style-type: none"> <li>• Web site development and maintenance</li> <li>• Fact sheets/newsletters</li> <li>• Audio visual materials</li> </ul>	



- Technical document summaries
- Establishment and maintenance of administrative records/information repositories
- Developing presentations and handouts
- Preparing meeting announcements and notices of public comment periods
- Meeting support
- Responding to informational requests

## **Quality Assurance (QA) Program**

TMCI has a history of successful quality management program design and implementation for government clients, including the Army, Air Force, Navy and Marines. Our quality programs combine fundamental management techniques and specialized technical knowledge under a disciplined structure with a focus on continuously improving processes. Our approach was developed using the best-accepted industry quality management practices. The goal of our quality control measures is to improve the efficiency, accuracy, and repeatability of our efforts, which result in overall cost reductions and increased quality to the Government.

Our approach prevents reoccurrence of mistakes, ensures a quality product is always provided, and adapts to changes. It is comprised of seven foundational elements, Defect Avoidance, Identification of Specific and Measurable Quality Attributes, Procedural Quality Assessment and Improvement, Managerial Quality Control, Integrated Quality Assurance Processes, Self-Inspection Plans, and Internal Staffing Plans.

Our quality initiatives are also responsive to all DoD requirements such as HIPAA and the Information Protection Act of 1977. Our quality program is based on 10 years of working with our government counterparts, resulting in excellent quality management performance.

TMCI also provides data quality management services under our existing contracts, including validation and database management. We developed an innovative quality program to govern our data quality management efforts, including independent validation of analytical data; data quality objectives development; quality assurance plan (QAP) development; analytical quality assurance/quality control (QA/QC) program development; and analytical methods evaluation and development.

Point of Contact on Customer Satisfaction

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