

### **Client Agency**

Colorado Integrated Justice Information Systems (IJIS) Institute

### **Participating IJIS Institute Consultants and Firms**

Tom Albin - The MACRO GROUP, Inc.

Bill Kuck - Analysts International

### **Dates Services Provided**

December 16-18, 2002

### **Overview of Technical Assistance Request:**

The Colorado CICJIS system was designed and built in 1997 using proprietary middleware designed by Sybase. The current version of software is at the end of its life and is no longer supported by the vendor (updates are available but not yet installed – waiting for the implementation of SID update project). While CICJIS has not experienced any major problems, the system is increasingly difficult to maintain. The primary purpose of this consulting engagement is to analyze the current system and the environment in which it runs, and provide suggestions as to how best to evolve it into a more strategic solution.

The Chief Information Officer of CICJIS requested advice and assistance from the IJIS Institute on the State of Colorado's technology approach to the implementation of integrated justice. The State of Colorado and the IJIS Institute agreed that the professional services provided to the State would include:

- Providing officials with the CICJIS program with information about new technologies to support integrated justice, especially XML and SOAP and the state of the market in this area;
- Making recommendations for technology approaches that will assist CICJIS in improving its approach to integration;
- Providing alternative technology migration strategy recommendations;
- Discussing the implications of technology choice on staffing; and
- Exploring the technology issues required to expand or pattern the CICJIS model for broader statewide use.

### **Type of Technical Assistance Services Provided**

The Integrated Justice Systems Information Systems (IJIS) Institute consultants met with representatives from the State of Colorado on December 16-18, 2002. Their visit consisted of a number of interviews with representatives from the agencies that share criminal justice information via the Colorado Integrated Criminal Justice Information System (CICJIS). The IJIS Institute consultants also gave a presentation that overviewed emerging technologies including XML, the state of the market, and trends in this area.

The IJIS Institute consultants were asked to examine and comment on the three primary integration methods (centralized index, event-triggered data transfers, and queries) and make recommendations/suggestions for the CICJIS in the following key areas:

### Centralized Index

- Recommend possible approaches to current database schema/central index using XML technologies, making a recommendation of the best approach
- Provide alternative technology migration strategies for the recommended new architecture
- Discuss how XML technologies would integrate with current approach and equipment, and with recommended approach and equipment
- Expand performance measurement capacity of the central index

### Data Transfers

- Compare current data transfer process in existing database schema with data transfer process in a new technology and discuss possible migration strategies
- Recommend technologies required to increase the current scope of the system and the program in general

### Queries

- Compare current query access approach with approaches utilizing newer technologies

The report describes the activities undertaken by the IJIS Institute consultants during their site visit to Colorado; summarizes the CICJIS system and the technologies and structure it currently employs; documents the IJIS Institute consultants' observations during the site visit; includes recommendations in the key areas (database schemas, data transfers, and queries); and includes additional recommendations for the CICJIS project team.

## **Observations and Recommendations Overview**

The report provides a number of observations on the Colorado CICJIS implementation, a proposed architecture for CICJIS taking advantage of XML technologies, and a basic roadmap on how the Colorado criminal justice community can move towards this more strategic architecture. The State of Colorado will benefit from evolving CICJIS to take advantage of XML and related technologies. XML is the state of the art for information interchange and data standards and is central to best practices of system architecture including object-oriented design, layered software architectures, and open systems. Integrating information between agencies using XML will permit shorter development cycles, reduce maintenance costs, increase productivity, and help improve the sharing of information. To meet challenges such as homeland security, criminal justice information sharing systems will increasingly need to integrate large amounts of less structured information from many different sources. XML will help the state of Colorado meet these challenges. A copy of the TA report can be found on the IJIS Institute website at [www.ijis.org](http://www.ijis.org).

## **Contact Information**

IJIS Institute  
[staff@ijis.org](mailto:staff@ijis.org)  
703-726-3697