

**HOW WILL REGIONALIZATION OF  
POLICE RECORDS MANAGEMENT SYSTEMS  
IMPACT MID-SIZED LAW ENFORCEMENT AGENCIES BY 2007?**

**A project presented to the  
California Commission on  
Peace Officer Standards and Training**

**By**

**Captain Russell Nicolopoulos  
San Bruno Police Department**

**Command College Class XXXII**

**Sacramento, California**

**June 2002**

This Command College Independent Study Project is a FUTURES study of a particular emerging issue in law enforcement. Its purpose is NOT to predict the future, but rather to project a number of possible scenarios for strategic planning consideration.

Defining the future differs from analyzing the past because the future has not yet happened. In this project, useful alternatives have been formulated systematically so that the planner can respond to a range of possible future environments.

Managing the future means influencing the future; creating it, constraining it, adapting to it. A futures study points the way.

The views and conclusions expressed in this Command College project are those of the author and are not necessarily those of the Commission on Peace Officer Standards and Training (P.O.S.T.).

Copyright 2002

California Commission on Peace Officer Standards and Training

## TABLE OF CONTENTS

	Page
LIST OF TABLES	iv
ACKNOWLEDGEMENTS	v
Chapter One	
ISSUE IDENTIFICATION	1
Issue Statement	1
Introduction	1
Summary	10
Chapter Two	
FUTURES STUDY	11
Nominal Group Technique	11
Process	12
Trends	12
Discussion of Trends	13
Events	18
Discussion of Events	19
Cross Impact Analysis	23
Discussion of Cross Impact Analysis	25
Alternative Scenarios	27
Alternative Scenario Introduction	27
Pessimistic Scenario	29

Optimistic Scenario	30
Normative Scenario	31
Summary	32
Chapter Three	33
STRATEGIC PLAN	
Introduction	33
Vision Statement	33
Situational Analysis	34
Stakeholders	36
Strategy Development	40
Summary	44
Chapter Four	45
TRANSITION MANAGEMENT	
Introduction	45
Commitment Planning	45
Implementation	46
Summary	49
Chapter Five	50
RECOMMENDATIONS AND CONCLUSIONS	
Recommendations	50
Conclusions	50
THE APPENDICES	53
Appendix A	53
Nominal Group Technique (NGT) Panel Members	

Appendix B	54
List of Potential Trends Identified by the NGT Panel	
Appendix C	55
List of Potential Events Identified by the NGT Panel	
NOTES	56
BIBLIOGRAPHY	58

## LIST OF TABLES

---

	Page
<b>2.1</b> Trend Summary	13
<b>2.2</b> Event Summary	19
<b>2.3</b> Cross Impact Analysis Summary	24

## ACKNOWLEDGEMENTS

---

I was able to participate in Command College and complete this project only with the support and assistance of:

Chief Lee G. Violett, San Bruno Police Department

Captain Rick Watson, San Bruno Police Department

Lieutenant Neil Telford, San Bruno Police Department

Rea Gogan, San Bruno Police Department

Merry Zook, San Bruno Police Department

My Wife and two Daughters

## CHAPTER ONE

### ISSUE IDENTIFICATION

#### Issue Statement

The research for this project will seek to answer the question: How will regionalization of police records management systems impact mid-sized law enforcement agencies by 2007? “A police records management system (RMS) is an agency-wide system that considers the reasons, the processes, and the means necessary for a document to exist and be used. RMS must cover the entire life span of the document, from its generation to its destruction. It provides for the effective storage, retrieval, retention, manipulation, archiving, and viewing of information, records, documents, or files that are related to a single subject.”<sup>1</sup> The specific and primary purpose of regionalizing a RMS is to share regional criminal justice information contained in individual systems. A mid-sized agency is one consisting of between fifty and one hundred and fifty sworn members.

#### Introduction

A RMS allows an agency to maintain effective operations by analyzing response trends, crime information, and other data useful in maximizing efficient resources. An effective automation solution is essential to the efficient operation of modern law enforcement agencies. “RMS provide immediate access to accurate, up-to-date information, reducing paperwork, improving officer safety, and enhancing both administrative and investigative operation.”<sup>2</sup> A RMS should allow one source of data input and multiple reporting mechanisms, which enables an agency to deal with its records in a simple environment.

Prior to records automation, agencies typically maintained hard copy data consisting of index files that had to be manually searched. Research and statistical analysis required the manual search and tedious deciphering of data. Manual operations made regionalization extremely difficult and labor intensive. Although computers have existed since the early 1950s, applicability, expense and sheer bulk made them impractical for local law enforcement to obtain. Meanwhile, changes in technology and legislation, increased demands for information and expanded civil liability began to contribute to the complexity of records management.

The information revolution of the past two decades has resulted in more people having faster access to more accurate information than ever before. Both the public and law enforcement expect agency information systems to respond quickly with an enhanced ability to recognize crime patterns and problem areas. Law enforcement agencies needed to improve their information systems in order to be able to better analyze and use the data they collected. By the early to mid 1980's, the personal computer (PC) was the technical advancement that began this shift. The PC moved law enforcement from a manual to an automated system. PC's were affordable and compact tools that were easily adaptable for records data collection and provided valuable word processing capabilities that soon made typewriters obsolete.

The influx of computer technology created a demand for software that was unique to law enforcement records management. Initial software packages were modifications adapted from the private sector and federal government.

To depict the development of RMS, I have selected three examples: San Mateo County, California; San Diego County, California; and Tucson, Arizona. The purpose of

using these areas is to exemplify the difficulties associated with developing and implementing an effective RMS. Unique requirements make implementation of even a single system in an agency a very difficult task. When you bring multiple agencies into the picture, the complexity of developing a functional efficient system further compounds the degree of difficulty.<sup>3</sup>

### San Mateo County

In the early 1970s, the San Mateo County was originally connected to the San Mateo Automated Rapid Telecommunications Systems (SMARTS). The system was the precursor of the modem router that switches information from place to place. SMARTS was connected to the California Law Enforcement Telecommunications System (CLETS), Police Information Network (P.I.N, which was a nine Bay Area county warrant system) and all county agencies. A later development in the system was the Master Name Index (MNI), which was strictly an index pointer system that did not have a database behind it. If an officer ran an individual in the field and received a hit, the officer would need to call the specific agency that held the data information in order to obtain specific information.

In the early 1980s the county received a technology grant to upgrade its computer system. The county contracted with a consultant who ultimately purchased hardware that was incompatible with the recommended software. After numerous unsuccessful attempts to get the system operational, the county contracted with a different firm that developed a database for the booking records system within the county. That company soon went out of business. Fortunately, several of the company's employees organized a

start-up company and resumed development of the system. The end result is the County of San Mateo Criminal Justice Information System (CJIS), which is still in effect today.

CJIS is a system designed to satisfy criminal information processing needs of the Municipal Court, the County Clerk and Superior Court, the District Attorney, the Sheriff's Office and other law enforcement. CJIS contains two subsystems: offender based tracking and law enforcement data information.

The court system is called the Courts Management System (CMS) and is part of the Offender Based Tracking System. It is used for calendaring, case initiation, case maintenance and case disposition. The District Attorney system is called the District Attorney Case Management System (DACM) and is part of the Offender Based Tracking system, which assists the District Attorney in daily record processing and management activities. The Jail Management System (JMS) is used by law enforcement and the sheriff to assist in the arrest and booking of suspects. It also consists of an Inmate Management System, which aides the sheriff in management of inmates, visitors, calendars, investigative tracking and classification. The RMS portion of the system assists the sheriff with field interrogations, crime reports, SNAR (sex, narcotic, arson registrants) and complaint requests.

All agencies are connected to a single centralized query and answer system that links each agency to a message switch system located in the county's Hall of Justice. The State CJIS System in the Department of Justice is a text based criminal justice case tracking application used to access warrants, records and other official inquiries. The network relies on a single hub to service the county.<sup>4</sup>

This is an example of a RMS that never fully achieved one of its intended purposes, to share data regionally among agencies. San Mateo County CJIS fell short of making all of the components satisfy the processing needs of all the stated participants. Access to many of the systems is either cumbersome or not available. According to 9-1-1 Magazine, this is not uncommon. Many agencies reportedly find their current RMS capabilities are inadequate and become wary of current market trends.<sup>5</sup> Vendors typically will promise agencies the world in an attempt to sell their product.<sup>6</sup> Political and internal pressures create a perceived exigent situation that results in agencies relying on vendor promises without adequately researching the capabilities of the proposed product. In order to offset potential pitfalls, agencies should consider the need for routine support and problem resolution by dedicated vendor staff that includes 24/7 call-out procedures, off-site backup and recovery of all software, on site installation of bug fixes and upgrades, training and refresher classes for personnel, and disaster recovery procedures.<sup>7</sup>

In another effort to regionalize information, six north San Mateo County agencies developed a North County Database in 1989. Once again, this was developed as a pointer system. This system differed from existing county and state computer systems because it included individual agency contact information. This was information collected by the officers in the field and made accessible by computer. It was to be used as an investigative tool that would provide officers with information within the North county region. It operated on PCs, an inexpensive means of capturing and transferring information. Each agency was responsible for the maintenance and accuracy of its own information. Officers acting on the information were required to verify its accuracy

through a secondary source. For instance, if address information were provided by computer, an officer would have to confirm this through Department of Motor Vehicle records, surveillance, or another source before using the address to obtain an arrest or search warrant. The source of most computer records was crime reports and select field interviews by officers. The hardware and software requirements were specified by the group. The medium for sharing the data was a floppy disk with updates compressed onto one disk. Each month the agencies were supposed to download records onto a floppy disk and provide it to the agency responsible for the system entry.

The North County Data Base never became fully operational because agencies failed to consistently provide update information. It became a cumbersome process that required each agency to insure individual data was updated. Between July 1993 and January 1994, only three agencies were actively contributing to the database. In 1994, the database was terminated for lack of participation.

San Mateo County is currently in the process of trying to regionalize information with a project termed LawNet. The purpose of the network overhaul is to prepare county agencies for online delivery of LiveScan fingerprint scanning system (CAL-ID) and other statewide and multi-agency applications. For this purpose, Atomic Tangerine, a consulting firm was awarded the request for proposal (RFP) to develop a comprehensive secured law enforcement intranet plan that would support future expansion of CAL-ID and modernize the California Law Enforcement Telecommunications System (CLETS) network and CJIS. One of the primary objectives of that project was to gather the information necessary to fully access the state networks and to identify the organizational requirements needed to facilitate the creation of a functional and accurate network

design. Atomic Tangerine collected data by conducting interviews and site visits with all the participating agencies. They were able to identify and address critical issues affecting network efficiency, security and reliability.<sup>8</sup>

The vision of LawNet is to interconnect San Mateo County law enforcement agencies and to connect law enforcement agencies to CJIS, while providing the ability to support the expansion of CAL-ID and other statewide and multi-agency applications through a secure network. It will establish two separate data centers, one in the South County and one in the North County. Each will have full processing capabilities and access to the Internet, as well as a link to the California Department of Justice for CLETS access. Each will support about ten county police agencies by high-speed data connections (T1 lines). Additionally, the data centers will be linked to each other.<sup>9</sup>

The first progression toward regionalization of local records in the LawNet project is occurring among six agencies that share a common software provider. These agencies have entered into a Joint Operating Agreement for shared computer services and formed the Safety Net Automated Records Exchange (SNARE) System. The members share costs and benefits of computer services including, but not limited to, computerized police records and the associated hardware and software systems necessary to access those records. Under the agreement, each agency will route data to the central database of the System Administrator agency. The Computer Systems Committee (CSC), which is made up of a representative from each participating agency will monitor the shared computer system's performance, plan for upgrades and enhancements, recommend cost-sharing arrangements, and resolve operational service problems. SNARE is a pointer system that

will provide the requestor with basic information. The requestor must then contact the specific agency in order to obtain in-depth information.<sup>10</sup>

### San Diego County

In San Diego County, the Automated Regional Justice Information System (ARJIS) Joint Powers Agency was created for the purpose of regionalizing RMS. The Joint Powers Agreement was created, in part, in response to the need to provide improved law enforcement capabilities to the San Diego region by an effective and efficient use of electronic data processing technology capabilities. As established, ARJIS is a public entity separate and apart from any member or ex-officio agency. It is governed by the terms of the Joint Powers Agreement and any bylaws passed and adopted by the governing board. The specific and primary purpose for the creation of ARJIS was to provide governing structure and policy for the sharing of local regional criminal justice information, to include: crime reports, incident reports, arrest reports, local booking photographs, officer notification, traffic accidents, traffic citations, field interviews, pawned property, wanted property, and fraudulent documents. The information contained in, and accessed from, ARJIS is derived from the previously mentioned reports and entered by the contract member agencies. The information is pertinent to the San Diego County area and is not associated with CLETS. The member agencies are local law enforcement and criminal justice agencies within San Diego County, which enter into contract with ARJIS to input and access information within the ARJIS network. It also includes ex-officio agencies, which are non-local law enforcement, state, or federal justice agencies within San Diego County. ARJISNet is the secure intranet that contains the data from the various regions. “It integrates over 2,500 workstations and printers

throughout the 4,265 square miles of San Diego County. There are over 10,000 registered and authorized users generating over 35,000 transactions daily.”<sup>11</sup>

ARJIS is also used for tactical analysis, investigations, crime analysis and statistical data information. Users can request the system to send an electronic notification when information they are seeking regarding an individual, location or vehicle is obtained by another agency or officer. It is a single point of entry that provides regional information to all participation members. In an effort to meet future needs, ARJIS is collaborating with the National Institute of Justice (NIJ) to build new-web based technologies to continue the support of the criminal justice agencies.<sup>12</sup>

#### Tucson, Arizona

With the help of grant funding in 1997 from the National Institute of Justice (NIJ), the Tucson Police Department and the University of Arizona’s Artificial Laboratory (UoAAL) created another regional RMS web-based integrated interface called COPLINK. COPLINK, designed by the UoAAL builds on the information systems that police departments have installed to manage their records systems. Having tackled knowledge management problems encountered at various government agencies, including the Central Intelligence Agency (CIA), UoAAL staff developed a program that would track and analyze all the information stored in an agency’s data sources, and then extract the information, consolidate it and index it so the data could be accessed and understood by all agencies.<sup>13</sup> “The end result was COPLINK, a system that warehouses and integrates the data at the local level. The local or regional systems can be interconnected into a large distribution law enforcement intranet or a group of extranets. As technology moves ahead, future applications can be added and the interface improved

incrementally. Agencies will not have to undergo redevelopment to take advantage of the rapidly changing technology. As integration with other agencies occurs, users will continue to have the same easy interface, which will keep training costs down.”<sup>14</sup>

### Summary

As exhibited in the preceding examples, law enforcement systems are very complex, and they are very difficult to develop and implement. Understanding the technical complexities and limitations associated with the unique requirements associated with RMS is essential. Technical issues, political issues, budgetary constraints, and vendor influence all have an impact on RMS efficiency.<sup>15</sup>

By reviewing the preceding attempts or examples to regionalize RMS, it is clear that accomplishing effective sharing of information among agencies is a complicated process that requires futures and strategic planning. Chapter II, Futures Study, will discuss and analyze possible trends and events that could impact the concept of regionalization in varying degrees.

## **CHAPTER TWO**

### **FUTURES STUDY**

#### Nominal Group Technique

The regionalization of record management systems will benefit law enforcement. Participating agencies will need to make clear decisions on what information will be shared, how it will be shared and how the information is to be used. This future study utilizes the nominal group technique (NGT) in the development of a strategic plan to make these decisions. The NGT process identified potential trends and events, which were used to develop future scenarios.

The nominal group technique (NGT) is a structured group process that is designed to identify and rank the major trends and events related to a specific issue. A facilitator directs the process and insures that the information obtained is properly memorialized. The method is intended to gain consensus with all types and levels of participants in a wide range of settings. It is a simple technique for structuring small group meetings and minimizing argumentative dissention. It is most appropriately used in judgmental or creative decision-making processes. It is intended to develop maximum participation by group members in the decision making process by avoiding the dominance of strong personality types and allowing all participants the opportunity for influencing the direction of the group outcomes.

For this project, the NGT panel consisted of seven individuals with diverse perspectives on the issues surrounding the regionalization of a police records management system. The panel consisted of two executive level law enforcement professionals from midsize agencies, three law enforcement records managers, a senior

vice president of a national banking firm and a safety manager consultant for a midsize fire department. The panel members are identified in Appendix A.

All of the participants received a briefing on the topic and on the NGT process. Following a briefing on the NGT process, the panel members were asked to share both trends and events that might influence how regionalization of police records management systems will impact a mid-sized law enforcement agency by the year 2007.

### Process

The first step of the process was to have all members silently reflect on ideas relative to the topic. This was followed by a round table concept of sharing ideas by the group members. The round table process continued until no further input could be obtained. The group generated thirty-six trends and twenty-two events that they identified as material issues. The group rated the trends and events, identifying the top ten trends and the top ten events. Discrepancies were discussed and points were clarified until the panel mutually understood each of the trends and events.

### Trends

Trends are defined as a series of incidents or events taking place that seem to indicate a direction in which a particular issue may be heading. It is based on the past, present and future and can be quantitative or qualitative.

The group rated the impact of the top ten trends and assigned a level of concern to them. In the Table 2.1, - 5 years represents the level of the trend on the topic five years ago, +5 represents the level compared to today, and +10 represents the level ten years from now. The Concern column represents the level of concern given to each trend by the panel on a scale of one to ten with ten representing the highest. An arbitrary value of

100 was assigned to signify the level of each trend at the present time. Table 2.1 contains the information about trends collected by the NGT Panel. The numerical values depicted in Table 2.1 reflect a median of the group's evaluation of the trends. A list of potential trends is included in Appendix B.

**Table 2.1 Trend Summary**

Trend #	Trends	-5 Years	Today	+5 Years	+10 Years	Concern
1	Extent of Privatization of Police Records Management Systems	50	100	125	150	5
2	Level of Standardization of departmental procedures across regions	60	100	135	145	7.5
3	Level of Technical Expertise	35	100	140	170	7
4	Level of Security	75	100	175	225	8.5
5	Level of Regional liability	75	100	150	200	8
6	Extent of Available Technology	75	100	175	250	7.5
7	Level of Training Required	75	100	125	150	7.5
8	Affordability of Technology	100	100	150	100	8.5
9	Level of Shared Expenses	100	100	150	175	6.5
10	Level of Shared Personnel Resources	50	100	125	175	6

#### Discussion of Trends

##### Trend 1: Extent of Privatization of Police Records Management Systems

This trend was defined by the group as a having a Police Records Management System maintained and operated by a non-public agency or firm. The group rated this as a medium level of concern at 5. The general consensus was that privatization only

existed in a few agencies 5 years ago and that the likelihood of agencies using private firms in the future would increase minimally.

The participants expressed concerns about misuse of information by the private sector and the potential of the release of information for profit. The group did acknowledge that the trend appears to be that government is trying to reduce costs by consolidating services or contracting with private vendors. Contracting with private firms to process parking violations was cited as an example. The ARJIS system in San Diego County was also noted as a public system that is researching privatization of records management systems. Misuse and efficiency was the concern of the group in this area. The group felt that the trend would be toward combining and regionalizing records, but within the public agency arena.

#### Trend 2: Level of Standardization of Departmental Procedures Across Regions

The group felt that there were small degrees of standardization five years ago, but they projected standardization would steadily increase through the next ten years. The concern level was a 7.5. One member of the group felt that within the next ten years the trend will be to standardize as much as possible, therefore making the trend a moot point. Essentially the member felt that once standardization is reached, its perceived level of importance will be reduced. With one exception, the consensus of the group was that standardization would not be completed in ten years and that it will be a continuous process.

### Trend 3: Level of Technical Expertise

The trend indicates that staffing requirements did not require technically skilled personnel five years prior, but that the future trend would require personnel to have a greater degree of technical knowledge. The general agreement was that the supply of technically skilled personnel would catch up with the demand. The level of concern was 7.

### Trend 4: Level of Security

The trend indicates the level of security is slightly greater today than it was five years ago, but that the need will become even greater in the future. Discussion centered on the availability of technically qualified personnel. The group felt that as with Trend 3, the supply of technically skilled security personnel would catch up with the demand. The level of security was one of the highest trends rated by the group at 8.5.

### Trend 5: Level of Regional Liability

Some of the group members felt the level of regional liability, like security, would continually increase. Some of the discussion on liability focused on the need to establish regional procedures that all agencies would agree upon. The group felt this would aid in reducing liability. Arrests warrant entries were discussed as an example.

The projected trend was to regionalize general procedures in order to reduce liability. All felt that sharing information would increase liability. Issues about who is ultimately responsible would best be addressed by regionalizing pertinent procedures. The convergence and complexity of a regional system is ripe for errors that can cause exposure. Liability is a constant concern that never goes away. One member indicated

that if standards were not regionalized, a critical incident would inevitably cause the agencies to reconsider it.

#### Trend 6: Extent of Available Technology

Technology is advancing so fast that it is difficult to stay current. The group projected that this trend would continue. Some of the discussion focused on being able to distinguish if the available technology meets the needs required to regionalize. The group felt that standardization of policies, procedures, and terms is required in order to develop a software package that meets the needs of all agencies. Much of the discussion focused on determining needs and identifying potential pitfalls prior to considering products. This trend received a 7.5 on the concern level.

#### Trend 7: Level of Training Required

For many of the same reasons as stated in Trend 6, the group felt that this trend would continue to increase. The training curve is projected to accelerate in order to stay in tune with the rapidly changing technology. The trend received a 7.5 on the concern level.

#### Trend 8: Affordability of Technology

The trend indicates the cost of technology will increase within the next five years, but that it will decrease in the next ten years. Eventually agencies will develop and test systems providing a track record for other agencies to evaluate. Research and development costs will be absorbed in the initial stages and the group projected that costs would decrease in later years.

One member suggested using information to offset costs by selling it to private institutions. As an example, financial institutions may want to know what types of

vehicles people own within a certain region in order to focus a marketing campaign for car loans.

#### Trend 9: Level of Shared Expenses

Shared expenses include maintenance and management of systems. The level of shared expenses may become more important as grant funding becomes unavailable or diminishes. Agencies will need to realistically assess these shared cost and have a governing board in place to insure how the expenses are disbursed. The panel felt that in order for a regionalized system to survive, all participating agencies must be capable and able to pay their fair share, including ongoing maintenance, management, and development.

#### Trend 10: Level of Shared Personnel Resources

Shared personnel resources were seen as a benefit to all agencies involved in the regional effort. This trend would save costs associated with the duplication of personnel, the recruitment of personnel and the training of personnel. The group also felt that this trend would assist in standardization of data input, procedures and policies.

## Events

Events are different from trends in that events are singular occurrences that transpire at a specific time and date, have a significant impact and have a probability of occurrence. Preparation gives us the opportunity to change or intervene in the projected event.

The panel was asked to repeat the basic process used in gathering trends in an effort to identify events they thought would have an impact on the issue. Twenty-two events were identified. A list of potential events is included in Appendix C. The group rated the projected the probability of occurrence of the top ten events and whether or not the impact would be positive or negative on the topic. Table 2.2 contains the information about events collected by the NGT panel. In Table 2.2, >0 represents the first probable year the event may occur, +5 represents the probability of the event occurring in five years, and +10 represents the likelihood of the event occurring in ten years. The Impact column represents the weighted impact of the event on the topic on a scale of 1-10 with 10 representing the most impact, and the + or – represents the panel’s impression on whether the impact will be positive or negative on the topic. The numerical values depicted in Table 2.2 reflect a median of the group’s evaluation of the events.

**Table 2.2 Event Summary**

Event #	Events	Year > 0	+ 5 Years	+10 Years	Impact
1	Records Management System Manager Arrested for misuse of confidential law enforcement records information	1	40	45	-1
2	Two 10 year olds arrested for hacking into regional Records Management System	1	35	60	-8
3	“Y” Computer Virus shuts down entire regional Records Management System	1	50	60	-9
4	Chiefs’ and Sheriff’s Association unable to agree upon standardization of procedures	1	75	100	-7
5	Federal and State Technology Funding Ends	1	40	50	-6
6	“X’ Company introduces new handheld computer	1	80	100	6
7	Communication Satellite Shot Down	1	30	30	-7
8	Shared Records System destroyed in terrorist attack	1	10	15	-9.5
9	Court opens public access to all police records	5	20	55	-6
10	Bomb kills President and Cabinet at Whitehouse	1	30	50	-5

Discussion of Events

Event 1: Records Management System Manager arrested for misuse of confidential law enforcement records information

The arrest of a manager of a records management system for misuse of information was not perceived as a significant impact. Most perceived this type of incident as an isolated occurrence, which would bring attention to any areas ripe for misuse. Some of the group viewed it as a potential benefit that would result in corrective measures with

only short-term harm. Others indicated that a serious breach could result in state-mandated consequences reacting to one critical incident. One member felt it would be a benefit, as it might eliminate private sector management.

#### Event 2: Two ten- year-olds arrested for hacking into regional Records Management System

Group members viewed this as an event that would have a significant impact and could happen today. Unlike Event 1, this was considered a breach of security, which would have devastating effects on a regional records management system. The integrity of a system breached by two ten-year-olds would have a negative impact on the impressions of the public and politicians. This could affect funding, continued regionalized efforts and the overall confidence in the system. An act such as this could reduce the probability of using the Intranet as an inexpensive means to distribute information.

#### Event 3: “Y” Computer virus shuts down entire regional Records Management System

This was viewed as an event that could occur immediately. The impact was extremely high at -9. A virus that shut down the entire system could result in severe operational liability issues. While the system is shut down, records information would be unavailable. This could result in people with high risk warrants not being arrested. Domestic violence warrants were cited as examples of officers not taking action when required. If a victim were subsequently harmed, the liability would be high. This is a moderate probability high-risk potential situation.

Event 4: Chiefs' and Sheriff's Association inability to agree upon standardization of procedures for Regional Records Management System causes failure

Standardization of general procedures is essential for a regional records management system. If the agency heads were unable to agree upon standardized procedures, the overall effectiveness of the system would be minimized. The failure to standardize would result in an ineffective regional records management system because the shared records information would not be consistent. Most of the group members felt that a failure in this area would be detrimental to any regionalized success.

Event 5: Federal and state technology funding ends

The end of technology funding would shift the entire cost burden of regionalization to the participating agencies. Agencies typically devote 80% and above of their budgets to personnel. The lack of funding may significantly impact the ability of agencies to fund the technology that is necessary to continue regionalized efforts.

Event 6: 'X' Company introduces new handheld computer

Companies that have the financial means to purchase evolving technology are having difficulties staying current because the technology is changing faster than they can obtain it. Unfortunately, public sector agencies can afford to change technology even less frequently and are even further behind the technical curve. Even when a new handheld computer is developed and available, the group felt that it would take a considerable amount of time for law enforcement to acquire it. Discussion on this topic focused on maintaining a training curve that will keep personnel current and prepared for ever-changing technological advances.

#### Event 7: Communication satellite shot down

The group felt that this was a low probability and indicated that technical problems were more likely to cause a communication shut down. Even though the members felt this would have little impact on affecting the regional records management system, the overall effect of this event would have a significant impact on outside sources of information that rely on satellite transmission. The majority of shared records management systems do not operate by satellite transmission.

#### Event 8: Shared Records System destroyed in terrorist attack

This was rated as a low probability. Most of the group felt that there would be sufficient back up data available that would allow for the system to be rebuilt with very little loss of data. All agreed that it would take a significant amount of time to rebuild the system. Some of the discussion focused on the ability of agencies to adapt to the use of hard copy documentation until the system could be restored.

#### Event 9: Court opens public access to all police records

The group viewed this as an issue that would impact productivity and felt that agencies would have to staff additional personnel in order to meet the increased request for access to public records.

#### Event 10: Bomb kills President and Cabinet at Whitehouse

Even though this event would not have a direct effect on the issue, the members felt that a catastrophic incident like this would create the potential for chaos throughout the nation. After an event like this, agencies would focus on maintenance of order issues and be less likely to focus on administrative issues concerning regionalization of records.

### Cross Impact Analysis

Trends and events do not occur in a vacuum. Occurrence of an event may impact the slope of the trend curve, thus affecting what will occur. Table 2.3 reflects the top ten trends and events on a scale of one to five, with five representing the highest impact and one representing the lowest impact on the topic. Additionally, the impact is presented as having either a positive or a negative influence upon the topic. The results are used to identify the trends and events, which are most likely to affect the problem statement.



## Discussion of Cross Impact Analysis

Based on the combination of events and trends, seven significant areas were identified.

The event/trends comparison with supporting reasoning follows:

1. E1 - Records Management System Manager Arrested for misuse of confidential law enforcement records information 4  
T4 - Level of security

The results of the cross impact analysis suggest that the arrest of a records management system manager for misuse of confidential law enforcement records information would have a positive impact on the need for security. This incident would reinforce the need for a security system that would prevent such misuse. Adequate security would positively reinforce the regionalization of a records management system.

2. E2 - Two ten-year-olds arrested for hacking into regional Records Management System 4  
T2 - Level of Standardization of departmental procedures across regions

The results of the cross impact analysis suggest that the arrest of two ten year-old hackers would positively impact the standardization of procedures across regions. The incident would reinforce the need for standardization of procedures to prevent further hacking situations.

3. E1 - Records Management System Manager arrested for misuse of confidential law enforcement records information 4  
T7 - Level of Training Required

The cross impact analysis results suggest that misuse of the system by personnel would have a positive impact on the level of training required. In order to prevent abuse and theft, training must be a priority. Educated personnel who

have a sound knowledge of the system are more likely to detect and report abuse or theft of information.

4. E4 - Chiefs and Sheriffs' Association unable to agree upon standardization of procedures -5  
T2 - Level of Standardization of departmental procedures across regions

The inability of members to agree on standardized procedures will have a significant impact on the issue statement. Agreement needs to be made on such issues of how to enter, what to enter, and how it will be shared. Without this consensus, it will be difficult to find a company whose product will meet the needs of regionalization.

5. E5 - Federal and state technology funding ends -4  
T6 - Amount of Available Technology

Many agencies would not be able to afford technology equipment without federal or state funding. Personnel costs account for the majority of law enforcement budgets. This event would force entities to seek either private funding or request items through the budgetary process. When grant funding dries up, city revenues are generally in a downward slide. The likelihood of budgeting these non-personnel items in a recession is not good, unless agencies can show that the technology will reduce personnel costs.

6. E3 - "Y" Computer Virus shuts down entire regional Records Management System 4  
T3 - Level of Technical Expertise

The event would emphasize the need for an increased level of technical expertise by personnel. Several members of the NGT panel believed that the need for technically proficient personnel was going to become a standard.

7. E4 - Chiefs and Sheriffs' Association unable to agree upon standardization of procedures -4  
T7 - Level of Training Required

The inability to agree on standardized procedures will have a negative impact on training of personnel. Without standardization, it will require additional training and staff time to decipher what each entity's record information means. Terms used by the various agencies and the sequential order that information is entered will not be the same for every agency. This creates a climate that is ripe for inaccurate interpretation of information and liability.

### Alternative Scenarios

Scenarios are developed based on input from the Nominal Group Technique and are used to forecast alternative futures. They are essentially futures stories that provide realism, which allows the reader to see potential occurrences that highlight dramatic changes and events. Scenarios are intended to allow the reader to focus on alternatives, not one set future. The three scenarios presented below describe pessimistic, optimistic and normative perspectives.

#### Scenario Introduction

It is 2004 and the regionalization of the Peninsula Records Management System has been in the development for the last two years. The pipeline network, which will carry the information for the twenty-one agencies, was primarily purchased through state grant funding and is in place. This is only the mechanism that will carry the data to and from the various agencies and the central data locations. At this time it is basically a highway without the signals and signs in place that provide direction.

The initial goal of the system was to provide a network that would allow all agencies to move data electronically. The premise was to create a communication access and not a repository of information. Additionally, all agencies would have direct access to Cal ID and booking photographs.

It has been a difficult venture, especially considering that the agencies in the county use five different computer aided dispatch (CAD) systems. In a first stage effort, six of the twenty-one county cities that have the same software provider have agreed to centralize their records making them available to the six subscribing cities. The six agencies all share the same CAD system and have entered into a Joint Powers Agreement, which will allow them to share the information. Issues like the standardization of the policies and procedures for input and sharing of information and maintenance need to be addressed, clarified and agreed upon.

The county police agencies have all agreed that the ultimate goal is to develop a system that will regionalize records for all twenty-one agencies. Concern has developed within the Police Chiefs' and Sheriff's Association. It seems that the method of data entry varies from city to city. Not all agencies are using the same terms or similar sequence for entry of information. Many members are waiting to see how the regionalization of records between the six cities works out. The general consensus is that this smaller integration process will face many of the same consolidation issues that the countywide integration will have to overcome.

## Pessimistic Scenario

While meeting on May 25, 2004 on the issue with all members of the Chiefs and Sheriff's Association, the private contractor who assisted in the consolidation for the six cities had to leave because a virus caused the system to fail. This resulted in speculative discussion among the group. They began addressing issues relative to security, liability and standardization of procedures. By the end of the meeting most were skeptical about the contractor's ability to develop an integrated system.

To further complicate matters, the virus that caused the system failure was the intentional acts of two ten-year-old computer geniuses that were testing their knowledge. After laborious analysis of the electronic intrusion of the system, the private contractor was able to find the point of intrusion, a backdoor access that was thought to be impenetrable.

At a next meeting, Chief John Pennywinkle of the Peninsula Police Department asked the contractor some pointed questions about the security of the intranet system. The contractor provided an elaborate technical explanation on the recent security failure and the improvements made to the six-city system that have corrected the security gap. Fortunately, Chief Jim Swift of the Bay Police Department has sufficient technical knowledge to rephrase the technical response of the contractor into language that the average layperson can comprehend. Chief Swift is quick to point out that there is no more grant funding available for the integration project. Any future expenses will have to be shared by the individual agencies. He recommended that each chief go back to their agencies and reassess their individual operational needs. He felt that this information would be beneficial because it would allow the group to reevaluate integration needs.

This started an aimless discussion that brought out issues about budgetary constraints, vendor influence, political goals and agendas, and technical issues. By the end of the meeting, the members had only agreed to reassess their needs.

### Optimistic Scenario

On May 25, 2004, the private sector consultant who assisted in the consolidation of the records management system for the six cities has been asked to address the Chiefs' and Sheriff's Association. After discussing and clarifying integration goals and objective, Chief Swift asked the vendor to address design, planning, system capability, implementation schedule, research, cost, warranty, support, liability, security and procedure concerns related to a regionalized system.

The consultant, using an elaborate but understandable power point presentation, explained a possible means of networking all systems by use of the Intranet and provide a demonstration of a simplified system that is currently being used by the county fire agencies. The fact that the network does not enter the CAD systems, but is designed to receive information from the CAD systems is pointed out as a security safeguard.

Additionally, the consultant points out that the fire service agencies had four different CAD systems. His firm developed the software, which translated the CAD information from the different systems and allowed all fire agencies to access that information via the Internet. He also noted the cost savings of using the Internet versus the current systems. The consultant cited the policies and procedures already established by the fire agencies as an example that can be used by law enforcement. The fact that the existing fire

system has an established track record received favorable reviews from the members.

The consultant was quick to point out that the integration of a police RMS is a unique process, which will require the development of specific software that has the capability of meeting the stated needs. He suggested, with his agency's help, that the group reassess their original integration efforts to insure they will meet current and future needs.

After three months of strategic planning and consultation, the Chiefs and Sheriff's Association was able to agree upon a strategic plan that addressed integration concerns and met the current and projected future needs of the association.

#### Normative Scenario

On May 25, 2004, the private sector consultant who assisted in the consolidation of the Records Management System for the six cities has been asked to address the Chiefs' and Sheriff's Association. During the meeting, the vendor addresses liability, security and procedure concerns related to a regionalized system. The consultant explains a possible means of networking all systems by use of the intranet and provides a demonstration of a simplified system that is currently being used by the county fire agencies. The fact that the network does not enter the CAD systems, but is designed to receive information from the CAD systems is pointed out as a security safeguard. Additionally, the consultant points out that the fire service agencies had four different CAD systems. His firm developed the software, which translated the CAD information from the different systems and allowed all fire agencies to access that information via the Intranet. He also noted the cost savings of using the Intranet versus the current systems.

The consultant uses the policies and procedures already established by the fire agencies as an example that can be used by law enforcement. The fact that the existing fire system has an established track record receives favorable reviews from the members.

The vendor is quick to point out that his agency has a proven track record, as exhibited with the fire service integration example, and that he is confident he can develop an efficient system that will meet the association's current and future needs. He is ready and able to begin development of the program based on the operational needs developed by the members and indicates he can have the system operational within three months.

Four months after the presentation, the Chiefs and Sheriff's Association entered into an agreement to contract with the private contractor to develop a regionalized records management system and to manage the system. They also formed an IT group, consisting of a member from each agency that will work with the contractor and oversee the development of the progress. This group will be responsible for the progress of the project.

### Summary

The Nominal Group Technique identified trends and events likely to have a significant impact on the issue of regionalizing a records management system in the future. The three scenarios presented possible alternatives of how law enforcement agencies will address this issue.

## **CHAPTER THREE**

### **STRATEGIC PLAN**

#### Introduction

Police organizations are constantly changing and will be different in the future than today. Technological advancements will stress the limits of organizations and require them to challenge the technical curve in order to be effective in providing protection and service to the communities they serve. In order to prepare organizations to meet future needs, administrators must make sound decisions today that will shape and develop their organization in the future. Progressive organizations use strategic planning as a future roadmap that will anticipate potential changes in the organization and focus on future versus present issues.

Strategic planning is a tool that we can use to describe and sell the perceived output of the planning process to stakeholders. It can be used to guide the organization in setting priorities, allocating resources and making decisions. It's a blend of qualitative and quantitative analysis that is both subjective and objective.

#### Vision Statement

In order to properly prepare for the future we must first have a vision. A vision statement is a snapshot of what we desire the future to be and what we want to achieve. The optimistic scenario vision discussed in Chapter II is the development of a regional RMS, that establishes a seamless integrated system that maximizes standardization of data and communications technology among the users and enhances law enforcement's ability to provide protection and service to the communities served by the system.

## Situational Analysis

Before agencies can successfully implement change, the organizational environment needs to be examined. In the case of regionalization, this requires the examination of each individual agency, as well as the group as a whole. One method of analysis is the use of the “WOTSUP” (Weaknesses, Opportunities, Threats, Strengths Underlying Planning) model to examine issues affecting the organization or organizations. This analysis is a general overview, which allows for insight into the regionalization process.

Weaknesses (potential areas which may require attention)

- Resistance to change of individual agency procedures to meet regional needs
- Recession may affect amount of available grant funding and shift greater expense to local agencies
- Continued technical advancement in the field will increase the cost of maintaining and acquiring equipment
- High cost of technology may limit availability to meet needs
- Security of the system may be jeopardized by technical advancements. Protection mechanisms should be constantly evaluated
- Changing from a localized mentality to a regional mentality
- Data entry issues need to be standardized
- Training requirements are constant and ever changing. The training curve must be maintained
- Accuracy of data entry is essential

Opportunities (potential benefits)

- Enhancing officer safety
- Improving service to customers

- Creative thinking that looks for opportunity
- Expands information capabilities of all agencies
- Grant money to support continued development of the project
- Development of technically knowledgeable personnel
- Centralization of records data
- Technology is readily available
- Creates a common objective for agencies to unite
- World Trade Center disaster of September 11, 2001 has raised public awareness about the need for integrating data<sup>16</sup>

Threats (things that may have a negative impact)

- Budget constraints which may not allow for the flexibility needed for change
- Organizational resistance to change
- Political agendas of agencies may adversely affect the overall objectives
- Emerging technology may make system obsolete
- Competing values among the agencies in the region

Strengths (areas which will support the plan)

- Clear vision, direction and support on a regional level
- Regional recognition and support of the need for change
- Increased and continual training
- Public support for integration
- Technological advancements in integration
- Willingness and desire to share information
- Officer safety is increased

- Community and regional safety is increased

### Stakeholders

Plans to affect organizational change must consider the stakeholders. Stakeholders are individuals or groups who are impacted, or who want to impact, what an organization does. Identifying all the stakeholders, both internal and external, allows an organization the ability to understand who may support, interrupt, or stop a plan. Identifying those who may significantly impact the success or failure of a plan is critical to achieving the ultimate goal. Some of the most destructive stakeholders are “snaildarters” who have no interest in the organizational plans, but arise at the most unexpected time to interfere with organizational plans.

Some of the stakeholders associated with this issue are:

#### Participating Agencies

The agencies that participate and benefit from the integrated RMS will have the greatest impact. They will have the benefit of increased information capabilities, increased coordination of efforts and increased officer and citizen safety.

#### Community Members

The members of the community will reap the benefits of law enforcement agencies having the benefit of regional information. Integration of records may have stopped two of the suspected hijackers who used their own names and were on the Department of Immigration and Naturalization (INS) watch list from boarding one of the planes used in the September 11, 2001 terrorist attack.<sup>17</sup> The use of Cal-ID will enable timely and accurate identification, which will aid in the apprehension of criminals and the reduction of misidentification.

## Elected Officials

These members are elected to office and are responsive to the community members they serve. They are tasked with deciding public policy and approving agency budgets. They provide direction to the city manager or county manager. They desire police agencies that are professional and adhere to ethical standards. Elected officials realize that police agencies need to utilize evolving technology in order to be efficient. Regionalizing a RMS meets this need.

## City Manager or County Manager

The city or county manager is appointed by and serves at the pleasure of the city council or board of supervisors. They are responsible for providing the vision and direction of the entity and are responsive to the electorate. The manager ensures that public policy adopted by the electorate is implemented and provides the necessary direction to city or county departments. Managers are responsible for determining budget distribution and staffing levels for the various departments within the entity. They seek to reduce liability while maximizing performance. Managers typically seek progressive police leadership that promotes a professional police department that works with the community to meet its needs. Integration of a RMS will increase law enforcement's ability to meet these needs.

## Sheriff and Police Chiefs

The Sheriff is an elected official who serves at the pleasure of his constituents, while police chiefs are appointed and serve at the pleasure of the city manager. They provide the vision and establish direction for the organization, set high standards and expect personnel to be accountable. In addition to influencing departmental culture, these

department heads ensure public and department policy is upheld. They respond to issues affecting department morale and continually look to future trends that may impact the agency and develop strategic plans based on probable trends. Each has a desire to utilize technology to the greatest extent possible and to maintain state of the art equipment. A regionalized RMS will create the necessary integration of information that will assist in these areas.

#### Police Executive and Mid-Managers

The command staff maintains communications within and without the organization. They exemplify the standards of the organization and lead by example. It is their job to provide the necessary direction to ensure the organizational vision is understood and practiced by all members. They provide direction for supervisory staff and maintain open meaningful communications between divisions. This group is responsible for directing and managing the development and implementation of new technology.

#### Police Supervisory Staff

These are first-line supervisors who provide direction to personnel and are responsible for specific units. They are the backbone of the organization and are responsible for the daily operation of the agency. They support the mission and values of the organization and ensure that they are practiced. Part of their job is to assess personnel needs and balance them with organizational objectives. They are the eyes and ears of the organization that relay realistic operational needs to command staff personnel. They work with and are the users of a RMS and have valuable input regarding the type of information that will benefit the organization and region.

## Police Officers

These are the line-level personnel who are the most visible and have the most interaction with the public. They expect everyone in the agency to be held to the same standard and have a strong desire to do the right thing. They are motivated and desire clear direction. Their desire is to provide quality service to the community. Line-level personnel have an expectation for state of the art technology. They desire technological enhancements that will provide them with more information and better tools to perform their job. These members provide the basic input documents to the system and their participation is essential to ensure report accuracy and completeness. A regionalized RMS system will allow them to do their job better and increase safety.

## Clerical and Non-Sworn Staff

These members handle the administrative duties of the agency. They ensure warrants, records and other data are properly entered and updated. Some provide dispatch functions and are a vital communication link for the officer. An integrated RMS will mandate that this group receive the necessary training to operate and maintain the system.

## Prosecutors

These officers of the court have a need for records for case filing, and require records for building and filing cases. A regionalized RMS will provide information from all the jurisdictions and allow a prosecutor the ability to efficiently prosecute violators. A commercial burglary suspect who is arrested in one town may have committed similar burglaries throughout the region. The RMS will give the investigators knowledge of the other crimes and allow them to consolidate the case. Consolidation of serial crimes will enhance the efficiency of the prosecutor and may serve as a deterrent to violators.

### Police Associations or Unions

These are labor groups that normally represent the members of an organization below the management or supervisory levels. They consider the best interest of the group as a priority concern and may have a degree of political influence within an organization. This group would benefit from an efficient regionalized RMS because it increases officer safety and improves the ability of members to do their job.

### Product Vendors and Technical Personnel

These individuals are usually private contractors who are not city or county employees. They are concerned with design requirements and should translate and analyze the user requirements into viable technical specifications.

### Law Violators

These are individuals who violate the law either through intent, ignorance, carelessness, or neglect. A regionalized RMS with Cal-ID and booking photograph capability will eliminate false identity issues. It will reduce data entry errors because data is cross-referenced. The regionalized RMS will reduce the possibility of someone being arrested on a warrant that has been recalled. It will also provide a broad base of information that will give police personnel information pertaining to a person's criminal involvement in the regional jurisdictions, thus reducing the possibility of that person going undetected.

## Strategy Development

When developing a strategic plan, it is important to be aware of the purpose for the regionalization of a RMS, which is to provide an effective integrated system that

enhances law enforcement's ability to protect and serve the community it serves. This provides the direction necessary to devise the strategy needed to succeed. Strategies to consider are:

#### Statement of Goals and Objectives

Every planning phase should have broad statements of system goals and objectives that place boundaries on the system and give the direction for design. They take the generalized statements of the user's goals, such as:

- The objective is to design a database that will be accessible by any participating agency to acquire information related to individual persons, vehicles, cases and other sources of data. The preferred approach will be a centralized database that will be replicated from each agency's RMS system over a wide-area network (WAN). This data base will be available for access by local CAD, RMS and mobile data users.

#### Design and Planning Process

It is essential that the users of the system be involved as early as possible in the design and planning process so that they have a stake in the system. This will assist in developing and implementing a viable and acceptable system.

Most successful projects use committees as part of the strategic planning phase. At a minimum, these committees should include a technical committee and a management committee. Having the technical committee chaired by a user group supervisor and having essential technical personnel as advisors is suggested. The management committee should avoid getting inundated with technical jargon, but should have final decision making powers. Other approaches have included the overlapping of

subcommittees to assist in the process. Committees should be kept small so that decisions can be made in reasonable time periods.

The committees will deal with research and planning related to:

- Developing detailed network design
- Developing Central Records Data Bases
- Developing records search functions
- Installation and configuration of hardware and network equipment
- Installation of software
- Testing of database updates and queries
- Conducting systems administrator training and operator training

#### Scope of System

The scope of the system deals with capabilities that should result from the consolidated RMS and how that system fits in the scheme of the regionalized effort.

Strategic planning should ensure the smooth integration of the regionalized RMS within the context of the existing and planned systems. This requires a clear definition of systems that will interface to the RMS, including what other systems will be procured or currently exist, such as crime analysis, crime reporting, CAD, Cal-ID, and Booking Photograph.

Standards are also part of this process. The regional group needs to consider if the system will meet the uniform data reporting requirements, state reporting requirements, personnel records standards, record retention schedules and data security standards.

## Schedule of Implementation

The strategic planning process should evaluate time constraints for implementation and installation, as well as issues of conversion. Technical and administrative constraints, such as funding and personnel, are examples of issues to consider. Some of the other issues for consideration include site planning, test planning, software and hardware design, installation planning, training planning, document conversion planning, maintenance planning and support planning.

## Research

The strategic plan should include a mechanism that continually measures and assesses processes, services and systems against those of successful organizations. Reinventing the wheel is not necessary. Conduct research and find which agencies have a regionalized RMS that measures up to your size, standards, and scope. This will help in developing the best design for the application.

Strategic planning should also consider the vendor community. It is essential to investigate credentials and product history.

## Budget

The budget should also be part of the strategic plan. It is important to consider as many budgetary options as possible to ensure growth, conversion, hardware, software, maintenance costs, operating costs, staffing requirements, site preparation, power and cabling concerns are met. In the case of regionalization, it requires contribution from all participants.

## Long-term Support and Technology Updates

Strategic planning should evaluate the expected life span of hardware, software and technology and plan accordingly. Plans need to be developed for the continued maintenance and support of the regionalized system. Concern should be given to issues of compatibility, open systems and maintainability. Ensure the company has longevity and is reputable.<sup>18</sup>

### Summary

Chapter III provides a structured approach to prepare for planned change that will impact the ability of organizations to provide quality service. An analysis of the organization was conducted and the stakeholders were identified. Having set the groundwork through the strategic planning process, the next phase is to develop a comprehensive plan to implement the change. Chapter IV, Transition Management, deals with this topic.

## **CHAPTER FOUR**

### **TRANSITION MANAGEMENT**

#### Introduction

The implementation of change is much more difficult than the process of deciding on what change to make. The actual implementation process of a regionalized RMS requires positive managed steps to insure the success of the project. Focused transition management techniques can aid in guaranteeing success.

#### Commitment Planning

Consensus among the stakeholders on the concept of a regionalized records management system is not a difficult task because it generally is a benefit to the participating agencies. Achieving consensus on implementation becomes more difficult because of differences that exist between the agencies. Not all organizations enter data in the same manner or use the same terms for data entry. Agencies have different software packages that cannot communicate to each other without developing interfacing software. An agency may have hardware, which may not be compatible with or capable of adapting to the integrated system. These are just a few of the implementation issues that need to be considered and addressed. Developing a commitment plan will assist in ensuring implementation.

The first step is to identify groups or individuals that are essential to affect change. This includes stakeholders, as well as groups and individuals who may not have a stake or interest in the project, but are influenced by the impact of the project. As an example, the new site of the regional RMS may be opposed by environmentalists on the basis that

it will destroy the habitat of the Red Legged Frog. They are not opposed to the regionalized RMS effort, only the designated site and its affect on the environment. All of these individuals and groups together comprise a critical mass, whose active commitment is necessary to affect the change.

The commitment of the community members, the participating agencies and their personnel, public officials, software and hardware vendors, and consultants are essential components to success. They must be thoroughly briefed on the purpose and scope of the regionalized project. In order to properly focus on the vision, meetings, briefings, and training sessions must occur to fully explain the benefits, impacts, cost factors, and downside of the project. It is important to emphasize that because this is an integration project of varying equipment and technology, there may be temporary technological setbacks that should not be viewed as failure. Assurance needs to be given that this is a cooperative regional effort that will benefit all and will increase law enforcement's ability to protect and serve the regional community.

### Implementation

The senior management of agencies must be consulted throughout the process in order to arrive at the solution that is best for all involved. This includes ensuring that players are vested in achievement of the same result. "Organizations and individuals are always resistant to change. Conflicting personalities, egos, and distrust among users are some of the greatest obstacles to integration efforts."<sup>19</sup> Remember that changing age old practices is difficult, regardless of the benefits of the new system.

All participating agencies must have an equal voice in the integration process. “The most effective structure includes all constituent organizations and provides a neutral forum for consideration of issues.”<sup>20</sup>

It is inevitable that unanticipated problems will arise. Regardless of the nature of the problems, there must be a mechanism in place to handle them. Many successful integration projects have addressed these issues by developing a small group that focuses on the business practices within the region. Successful groups tend to meet frequently and address issues as soon as they arise. Agencies that appear to be experiencing the greatest difficulties either have no local committees or rarely bring committees together to resolve their problem.<sup>21</sup>

According to researchers who studied the Colorado Integrated Criminal Justice Information System, the greatest challenges of implementation of an integrated system have not involved technological issues, rather they have involved business rules. They describe business rules as “protocols agreed to by the agencies sharing information regarding what action needs to occur or what document needs to be issued as a result of a particular action being taken, or as a result of the arrival or dissemination of a particular date element or data set or form, etc”.<sup>22</sup> Business procedures should be analyzed in order to determine the most efficient method to automate the integrated system. This is a tedious transitional process that usually requires constant modifications to the originally agreed upon rules. Participants need to study, define and evaluate business rules before implementing an integrated system. “The system should be developed with a clear understanding of business rules so major problems are not continuously arising after the system implementation.”<sup>23</sup>

Integration should set manageable goals to the initial efforts. When multiple agencies are attempting to integrate a RMS, the complexity of the tasks multiplies significantly. The typical goal of full integration and “pie in the sky” objectives that are commonly seen in regional systems are usually unrealistic and tend to signal project failures.<sup>24</sup> System implementers should develop integrated systems incrementally and build upon early successes.

As stated earlier, system buy-in from the stakeholders is essential. Lack of support from any one participating agency in an integrated effort can be fatal to project success. As an example, staff from each agency must be trained and educated as to the benefits of the integration effort. Fears and skepticism must be mitigated. This can be achieved by frequent meetings and open discussion about every aspect of system implementation. Stakeholders must be involved from the outset so that common vision and similar objectives are developed.

Information Technology (IT) should be seen as a continuing investment by the participants and adequate funding should be allocated. Agencies need to get past the stage of looking at technology as a five to ten year investment and realize that intermittent change is a necessity. “Information systems need to be upgraded continuously throughout the system lifecycle to enable the system owners to adapt quickly to the changing needs of the criminal justice community.”<sup>25</sup> Funding for the needed change cannot be a one-time process. Budgets need to reflect the on-going need for system maintenance and upgrades.

Developers should keep in mind that the best development and implementation will fail if users are not adequately trained in the technology and business impacts of the

integrated system. Developing empathy among the users for each other's business practices is an important aspect of the initial training. This will aid in breaking down any political and organizational barriers that may hamper or prevent success of the system.

It is important to remember that integration of a regionalized RMS system is not a one-time effort. It should be considered an on-going process that will require maintenance and continuous development of the system.

### Summary

Stakeholders, implementation planning, project issues, training, monitoring and evaluation programs are all necessary functions of the implementation process. In order to implement change, organizations must carefully determine the level of stakeholder support or resistance. The level of commitment from the necessary players and observers must be identified in order to move forward in the implementation process. Technology is available that offers the ability to share data and resources that our predecessors in law enforcement dreamed about. In the next five years, it is essential that regionalized RMS efforts take place in order to create agencies that are better prepared to perform objectives that include protecting the communities they serve and promoting increased officer safety. Chapter V will provide recommendations and conclusions to achieve these goals.

## CHAPTER FIVE

### RECOMMEDATIONS AND CONCLUSION

#### Recommendations

It is clear that organizations are changing and it is critical for leaders to maintain pace with these changes. The research suggests that because of IT changes, integration of information systems is ripe for agencies. Some agencies have grasped the opportunity and have moved or are moving toward proactive RMS integration. Unfortunately, many organizations are still in the process of fine tuning or modifying their individual ability to maximize data within the agency.

It is essential that law enforcement proactively pursue the ability to share regionalized information by integrating Record Management Systems. The key is to develop a seamless information sharing system that is available on request to all authorized user agencies. The development of a modern integrated system will allow information to be shared and moved electronically, reducing the time, effort and cost that now go into producing, tracking, forwarding, filing and retrieving documents.

Integration of a RMS will also increase safety for the public and police officers, because it provides a broader base of information that will be shared. The common inquiry will link information systems maintained by the regional agencies and allow authorized personnel the ability to call up a full file on an offender by pulling together information from all participating regions.

#### Conclusion

A regionalized RMS will significantly increase the ability of a mid-sized California law enforcement agency to immediately access information throughout the region. A

broad information base allows an agency to be more productive and to be better prepared to proactively investigate criminal activity. Some of the benefits of implementing a regionalized RMS include:

- Crime related information would be available to all agencies as events happen. It will foster cooperation between agencies.
- It facilitates communication and information exchange between agencies.
- It will reduce the amount of time to access information from outside agencies.
- It improves the accessibility of information to all levels of the agency, from communications to patrol to investigations.
- Information can be accessed from a variety of interfaces, including RMS, CAD, mobile data and web browsers.
- It provides a cost-effective solution that maximizes the shared product.

In order to accomplish successful integration there needs to be a high degree of standardization and cooperation on how to share data, and the ability to deliver information quickly with a high degree of reliability. This requires the cultivation of support from everyone who shares a stake in the project. Additionally, agencies need to agree upon common data standards and operating procedures for the system. This is where the work gets difficult and requires involved agencies to buy into the vision of integration. They need to understand that the only way they are going to be able to play together is to have a system that adheres to agreed upon standards. Agencies also need to be financially prepared to not only maintain the system, but also to financially support its projected evolution.

Regionalizing a RMS can have a significantly positive impact on a midsize law enforcement agency if implemented as discussed. Efficient regionalized RMS integration will provide shared data that will enhance participating law enforcement agencies' abilities to protect the community they serve and the officers they employ.

## APPENDIX A

### Nominal Group Technique Panel Members

Ralph Marinaro, Assistant Vice President, Bank of America

Rhonda Caine, Systems Manager, Burlingame Police Department

Merry Zook, Records Supervisor, San Bruno Police Department

Duane Bolton, Systems Manager, Daly City Police Department

Rick Watson, Captain, San Bruno Police Department

John Parkin, Systems Manager, Burlingame Fire Department

Neil Telford, Lieutenant, San Bruno Police Department

## APPENDIX B

### List of Potential Trends Identified by the NGT Panel

1. Mobility of population in area
2. Amount of criminal element that stays in area
3. Level of information available
4. Level of training
5. Level of privacy of information
6. Retention of information development
- 7. Level of technical expertise**
- 8. Extent of privatization of Police Records Management Systems**
9. Revenue capabilities
10. Trend for request for release of information
11. Level of use by members
12. Retention of personnel
- 13. Affordability of technology**
- 14. Extent of available technology**
- 15. Level of shared personnel resources**
- 16. Level of regional liability**
17. Availability of software vendors
18. Amount of individual agency control
19. Level of member cooperation
20. Development of policy/procedures
21. Development of decision making powers
22. Amount of shared command
- 23. Level of shared expenses**
24. Level of local control
25. Level of standardization
- 26. Level of security**
27. Level of access
- 28. Level of standardization of procedures**
29. Amount of shared personnel resources
30. Level of grant funding available
- 31. Level of training**
32. Public cost savings
33. Amount of managerial accountability
34. Level of compatibility of systems
35. Extent of audit capabilities
36. Potential legal issues

---

λ The trends identified by the NGT panel as most likely to impact the issue are in bold.

## APPENDIX C

### List of Potential Events Identified by the NGT Panel

- 1) **Federal and State Technology Funding Ends**
- 2) Terrorist Accidentally Detonates Nuclear Device while Crossing the Utah Salt Flats
- 3) **Bomb kills President and Cabinet at White House**
- 4) Unknown Weapons of Mass Destruction Device kills Fifty in San Francisco Bart Tube
- 5) **“X” Company introduces new handheld computer**
- 6) First Human Cloned
- 7) **Communications Satellite Shot down**
- 8) Police Department sells customer data to local financial institution
- 9) **Shared Records System destroyed in terrorist attack**
- 10) New Rapid Transit System blamed for increase in local crime
- 11) **Records Management System Manager Arrested for mis-use of confidential law enforcement records information**
- 12) Identification Chips implanted in newborn Baby
- 13) Court Mandates DNA chip implants in all Citizens
- 14) **Court opens public access to all police records**
- 15) Cure for all Cancer Found
- 16) Lucent files Bankruptcy
- 17) Government Repeals Paper Money for E-Transactions
- 18) **Two 10 year olds arrested for hacking into regional Records Management System**
- 19) United States Economy in Depression
- 20) **“Y” Computer Virus shuts down entire regional Records Management System**
- 21) Private Firms Files Suit Demanding Access to all Records Management Information
- 22) **Chief’s and Sheriffs’ Association unable to agree upon standardization of procedures**

---

λ The events identified by the NGT panel as most likely to impact the issue are in bold.

## END NOTES

---

- <sup>1</sup> Charles Drescher, Law Enforcement Information Management Guidelines for: Records Management Systems ((International Association of Chief of Police, 1998)
- <sup>2</sup> Bill Kumagai, New Trends in RMS, MIS (9-1-1 Magazine,9/97)
- <sup>3</sup> Ronald H. Jayne, Sharing data – The elusive goal; the mysterious failure, (California Peace Officer’s Association Newsletter, December 2001)
- <sup>4</sup> CAL-ID Network Backbone for San Mateo County, Final Report September 2000, Atomic Tangerine
- <sup>5</sup> Bill Kumagai, Records Management Systems, What will the next generation look like? (9-1-1 Magazine, 9/97)
- <sup>6</sup> Ronald H. Jayne, Sharing data – The elusive goal; the mysterious failure, (California Peace Officer’s Association Newsletter, December 2001)
- <sup>7</sup> Charles Drescher, Law Enforcement Information Management Guidelines for: Records Management Systems ((International Association of Chief of Police, 1998)
- <sup>8</sup> CAL-ID Network Backbone for San Mateo County, Final Report September 2000, Atomic Tangerine
- <sup>9</sup> Ibid
- <sup>10</sup> SNARE, Joint Operating Agreement for Shared Computer Services in Support of Law Enforcement Activities, December 2001
- <sup>11</sup> ARJIS, [www.arjis.org/overview](http://www.arjis.org/overview)
- <sup>12</sup> Ibid
- <sup>13</sup> Changing the Rules of the Game, <http://www.fcw.com/civic/articles/2000/april/civ-COPLINK>
- <sup>14</sup> John Stein Monroe, COPLINK: Database Detective, National Law Enforcement and Correction Center, Tech Beat, April 3, 2000
- <sup>15</sup> Ronald H. Jayne, Sharing data – The elusive goal; the mysterious failure, (California Peace Officer’s Association Newsletter, December 2001)
- <sup>16</sup> Ephraim Schwartz and Tom Sullivan, U.S. attack: Data integration needed to track terrorists, (Infoworld Media Group, September 13, 2001)
- <sup>17</sup> Ibid
- <sup>18</sup> Charles Drescher, Law Enforcement Information Management Guidelines for: Records Management Systems ((International Association of Chief of Police, 1998)
- <sup>19</sup> Amir Holmes and David Usery, Case Study Series, A Report of the National Task Force on Court Automation and Integration, Colorado Integrated Criminal Justice Information System, Project Overview and Recommendations, (SEARCH National Consortium for Justice Information Statistics, Fall 200/Winter 2001)
- <sup>20</sup> Ibid
- <sup>21</sup> Ibid
- <sup>22</sup> Ibid
- <sup>23</sup> Ibid
- <sup>24</sup> Ronald H. Jayne, Sharing data – The elusive goal; the mysterious failure, (California Peace Officer’s Association Newsletter, December 2001)

---

<sup>25</sup> Amir Holmes and David Usery, Case Study Series, A Report of the National Task Force on Court Automation and Integration, Colorado Integrated Criminal Justice Information System, Project Overview and Recommendations, (SEARCH National Consortium for Justice Information Statistics, Fall 2000/Winter 2001)

## BIBLIOGRAPHY

---

A Guide for Applying Information Technology in Law Enforcement, (National Law Enforcement and Corrections Technology Center, U.S. Department of Justice, Office of Justice Programs, National Institute of Justice, March 2001)

ARJIS, ([www.arjis.org/overview](http://www.arjis.org/overview))

CAL-ID Network Backbone for San Mateo County, Final Report September 2000, Atomic Tangerine

Changing the Rules of the Game, (<http://www.fcw.com/civic/articles/2000/april/civ-COPLINK>)

Drescher, Charles, Law Enforcement Information Management Guidelines for: Records Management Systems ((International Association of Chief of Police, 1998)

Electronic Records Procedures (NIST-Gaithersburg and Boulder), (NIST Administrative Manual, Subchapter 2.06, September 29, 1995)

Guide to Managing Public Records in Georgia, (<http://www.sos.state.ga.us/Archives/rms/>)

Holmes, Amir and Usery, David, Case Study Series, A Report of the National Task Force on Court Automation and Integration, Colorado Integrated Criminal Justice Information System, Project Overview and Recommendations, (SEARCH National Consortium for Justice Information Statistics, Fall 200/Winter 2001)

Jayne, Ronald H., Sharing data – The elusive goal; the mysterious failure, (California Peace Officer's Association Newsletter, December 2001)

Kumagai, Bill, New Trends in RMS, MIS (9-1-1 Magazine, 9/97)

Kumagai, Bill, Records Management Systems, What will the next generation look like? (9-1-1 Magazine, 9/97)

Leon, Mark, Integration Tale of Woe, (ITworld.com, September 27, 2001) manuals)

Monroe, John Stein, Changing the Rules of the Game, (FCW Government Technology Group, April 3, 2000)

Monroe, John Stein, COPLINK: Database Detective, National Law Enforcement and Correction Center, Tech Beat, April 3, 2000

National Criminal History Improvement Program, (U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, November 1994)

Ontario Integrated Justice Project, ([www.integratedjustice.gov.on.ca](http://www.integratedjustice.gov.on.ca))

Pendleton, Steve, Technology Acquisition Project Case Study, Altamont Springs, Florida, Police Department, (National Institute of Justice, 1998)

Scwhartz, Ephraim and Sullivan, Tom, U.S. attack: Data integration needed to track terrorists, (Infoworld Media Group, September 13, 2001)

SNARE, Joint Operating Agreement for Shared Computer Services in Support of Law Enforcement Activities, December 2001

Stackpole, Beth, To catch a Thief – Integration, (CIO Magazine, July 1, 2001)

Stedman, Craig, Application Integration Ripe for Consolidation, (Itworld, September 20, 2001)