# Reconnaissance Study

# Developing a Business Case for the Integration of Criminal Justice Information

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# Executive Summary

To be effective, a business case for criminal justice information integration (CJII) must be specific about its objectives, practical in its approaches, and realistic in assessing its prospects for success. This study examined several integration initiatives in order to ground business case development in current realities. The study revealed a complex but optimistic picture for improving integration. There is much enthusiasm for the general objectives for integration: smooth and effective information sharing and use, increased public safety, enhanced justice in society, and more efficient government operations. The problems come when actual integration initiatives generate conflict over specific impacts on budgets, organizational relationships, and established procedures. These are problems not of technology nor of conflicting visions, but of organizational and political interests and relationships. All should be reflected in a business case for CJII.

The results of this study are based primarily on 26 interviews conducted with persons who were knowledgeable about specific state and local initiatives. The interviews ranged in length from 45 minutes to 2 hours, and were semi-structured, open-ended in style. The study also draws on published materials about the integration initiatives, obtained either from the participants directly, or by searching print and electronic sources.

The study showed that achieving a high level of integration is feasible and has been achieved in some states and localities. These examples of success can serve as lighthouses for integration efforts elsewhere by illustrating problems to be solved, successful strategies, and benefits to be obtained. A number involve building the foundation blocks for more complete integration, such as formal coordination bodies, data networks, and collaborative relationships. There is growing attention to and funding for the integration agenda at the local, state, and Federal levels. As attention and resources have increased, the cost of information technology has continued to decline, bringing higher capability within the budgets available for new initiatives.

Quite a wide variety of initiatives were identified, including several that were *comprehensive* in scope, and others that were *selective* and focused on specific objectives. Along with widely varying objectives, the states and localities have a mix of histories for integration initiatives ranging over a 20+ year span. The Harris County Justice Information Management System (JIMS) has grown from a modest beginning in the late 1970s to what is now a large integrated system. By contrast, Colorado pursued a much faster statewide effort. They began with an exploratory commission in the late 1980s, leading to the Colorado Integrated Criminal Justice Information System (CICJIS) Task Force in 1995, followed by a full integration plan approved in September 1996 and a live statewide system in May 1998. The result of these various development paths is a patchwork quilt of integration initiatives. Thus an effective business case for advancing integration initiatives must be tailored to its particular corner of the quilt.

### Overcoming Barriers to Achieving Integration Objectives
Success depends on overcoming the many barriers to integration found across the sites we studied.

- *Turf*—the desire to avoid the costs of change, to reduce or control risk, and to preserve autonomy in an adversarial environment. The successful solutions depended on building trust

and increasing incentives, or making the resistant participants more aware of incentives and benefits, and controlling costs.

- *Complexity and variety*—Inconsistencies in scale and structure among governments and levels make compatibility and consistency in applications more expensive and complicated to design and develop. These uneven rates of development and technological sophistication result in an uneven capacity to innovate.
- *Need for a champion or powerful advocate*—The champion is needed to overcome resistance to central coordination, standardization, or the uniformity and consensus necessary to achieve most integration objectives.

### *Lessons About Success*
Successful achievement of integration objectives is clearly possible by a number of different paths, such as a "full frontal assault" on comprehensive integration objectives and in other cases, limited strategic objectives as part of a larger strategic plan.

Several other factors played a role in success.

- A crisis or high visibility event that focused attention on the need to improve integration.
- Informal relationships that facilitate communication and provide ongoing opportunity for the interaction necessary for moving integration forward.
- A building block implementation philosophy that allows systems to be constructed from a number of inter-related "blocks" or components, guided by an overall vision or strategic plan.

### *Necessary Ingredients*
There were a number of consistencies among the integration initiatives that suggest some necessary ingredients for success.

- *Coordination and control mechanisms*—to support communication, collaboration, and some sort of authoritative decision making among the many players in the enterprise.
- *Trust*, *participation*, and *buy-in*—successful relationships, building trust through power sharing, incentives, and shared interests.
- S*tandards*—agreement and consistency in data elements, their definitions, data manipulations, operational procedures, and application design.
- *Comprehensive planning* and a *long-range perspective* — to achieve a wider, more systematic range of objectives.
- *Understanding of the business process* —clear and highly detailed knowledge of the specific procedures that generate or use criminal justice information in order to support and enhance the business processes.
- *Adequate financial resources*—an ongoing commitment of resources to avoid obsolescence, and meet escalating demands for capability.

### *Useful Ingredients*
A number of other factors, or ingredients, were clearly helpful in promoting greater integration in the cases studied.

- *Peer pressure*—agencies or jurisdictions felt a competitive pressure to improve their own integration capacity when a peer agency or jurisdiction improved theirs.
- *Increased demands*—for improved integration prompted by growing sophistication about what is possible with rapidly improving information technology.

- *Reinventing government*— movement and the related emphasis on efficiency, innovation, and improved service delivery.
- *External support for networking*—has also been a valuable resource for integration, such as the Office of Justice Programs workshops.

### Assessing the Benefits

A key benefit of improved integration is improved decision making. This includes better information for law enforcement officers at the points of critical decisions, better information as a tool for improved court management and case-related decisions, more complete information for both prosecution and defense attorneys, and for jails and corrections officials to make appropriate classification and assignment decisions. Parole officers desire improved information to better manage their cases. Though not measured in financial terms, there was clear consensus that justice professionals attach a high value to these benefits.

Benefits also include reduced exposure to liability for mistakes, since errors in the criminal justice enterprise can be very costly. Eliminating redundant data entry reduces the possibility of errors and can improve data quality as well. As with improved decisions, estimates of actual savings due to error reduction were not available. Benefits in terms of administrative efficiency were also reported. These include reducing or eliminating redundant data entry and paper work, delays in accessing information, reducing costs for retrieving information, and avoiding delays through better coordination.

### Assessing the Costs

Available cost estimates and reports provide only a very rough guide for planning. The consensus among those who participated in the study was that integration initiatives are potentially expensive, but still clearly cost-effective overall. Some examples do give a rough indication of the range of costs involved. At the high end, North Carolina estimated $91 million for its integration work, and Alaska's integration initiative includes a budget estimate of $84 million over four years. Sarasota County (Florida) recently implemented an integrated system at approximately $5.9 million, estimated to save $2-3 million per year. The Harris County JIMS has an operating budget of $2.2 million per year, and is estimated to save considerably more than that in overall time and operational costs.

### Implications for Business Case Development

- Need to tailor strategy to the time and place, to each jurisdiction's unique problems and opportunities, stakeholders, and interests and goals.
- Importance of buy-in, which depends on careful attention to interests and incentives, and understanding of the players' needs and objectives.
- Strategies for building grass roots support, including how to develop persuasive presentations and print materials, and how to elicit information about interests and needs from potential participants.
- Importance of planning requires case materials to include tools and examples of plans and planning techniques used effectively in other initiatives, and descriptions of planning and strategy-making tools.
- Federal role in funding has been important, so the business case materials should contain information and tools to support requests for Federal funds.
- Organizing the pitch will require basic marketing and selling techniques, such as concepts and methods for understanding the potential market and the customer, discovering needs and preferences, and effective communication and persuasion.

# Purpose and Overview

This study was conducted to provide knowledge about current criminal justice information integration initiatives as a basis for designing business case materials. To be effective, a business case for criminal justice information integration must be specific about its objectives, practical in its approaches, and realistic in assessing its prospects for success. Therefore it must be grounded in the realities and problems of criminal justice information use and responsive to the main issues affecting attempts at integration.[1] While the overall objectives of information integration may be common across many states and localities, the specific issues and problems to be solved vary greatly. This study was conducted to examine current initiatives and their context in local, specific terms. The resulting details about the types of initiatives underway, their objectives, and progress form a very useful basis for business case development and for broader understanding of integration in general.

## *Approach to Information Integration*

Integrating criminal justice information involves, ultimately, the whole institutional structure of the criminal justice enterprise.[2] This organizational and institutional structure differs greatly among states and localities. To simplify the description a bit when describing information creation and use, information needs and activities are grouped into five basic functions: (1) law enforcement, (2) court operations and administration, (3) prosecution and legal administration (Prosecuting/District attorneys, states attorneys, Attorneys General), (4) defense (public and private), and (5) incarceration (including parole).[3] Of these, three typically fall under the executive branch of government (law enforcement, prosecution and legal administration, and incarceration). In a number of states, however, the executive branch at each level can include constitutionally independent executives (e.g., separately elected Attorneys General, District Attorneys etc.). In all cases, the courts are a separate branch of government, but often dependent on the executive and legislature for funding. The legislature is, of course, involved directly through funding and oversight of these other branches, as well as through legislation on crime and criminal procedures.

These different components of government seldom share the same objectives or views of criminal justice information integration. The courts tend to see criminal justice as only part, and in terms of case load the minority part, of their business. Improved court information integration can mean improved management, better input for decisions, and better justification of budget and workload. In the law enforcement area, the primary concern are public safety, reduced risk to officers, and

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[1] For simplicity this report uses the term "integration" to represent the more specific term "criminal justice information integration" since the latter is somewhat cumbersome for repeated use. It is not meant to imply integration of the institutions and agencies themselves.

[2] The term "criminal justice enterprise" is used here instead of the more common "criminal justice system." It refers to all the activities conducted by the organizations that are responsible for criminal justice in a particular setting.

[3] An example of the kinds of complexity that can arise is found in the fluctuating government structure of parole functions in New York. Over its history the parole function has moved back and forth three times between being a part of the Department of Corrections and being a separate Commission reporting directly to the Governor.

less chance of making major mistakes, as well as reducing paperwork. The analysis here has to deal with these and a wide range of other divergent views.

The divergence of views does not extend to the general meaning of integration of criminal justice information. All the parties desire smooth and effective information sharing and use throughout all these diverse branches, functions, and levels of government. Agreement is also easy to reach on the expected results: increased public safety, enhanced justice in society, and more efficient government operations. The problems come when actual integration initiatives generate conflict over specific impacts on budgets, organizational relationships, and established procedures. For example, there was widespread support for implementing a statewide LiveScan fingerprint system in California. But it required standardizing booking and identification procedures across hundreds of local law enforcement offices. Orange County already had its own well-established scanning system and procedures in place and was unwilling to abandon them. Both the state and county had to accept adjustments to allow Orange County local fingerprinting to become integrated with the state's, while maintaining most of the local procedures and systems. This example, as with most problems and issues we encountered, involved problems not of technology nor of conflicting visions, but of organizational and political interests and relationships. These concerns thus form the core of the analysis and discussion to follow.

## *Overview of Methods*

The results of this study are based primarily on interviews conducted with participants in integration initiatives. A total of 26 telephone interviews were conducted over a two-week period. The participants for the initial interviews were selected by the Office of Justice Programs staff as persons who were knowledgeable about specific state and local initiatives. During the interviews the participants were asked to identify other knowledgeable persons for possible additional interviews, and some of these were contacted as well. The interviews ranged in length from 45 minutes to 2 hours, and were semi-structured, open-ended in style. All the participants were contacted with preliminary phone calls or email and received a copy of the interview questions in advance. All interviews were recorded and notes and summaries were prepared. The interviews were conducted by Center for Technology in Government professional staff who were trained specifically for these interviews to ensure consistency in questions and approach. The study also draws on published materials about the integration initiatives, obtained either from the participants directly, or by searching print and electronic sources.

# Observations on CJ Integration Initiatives

## *Prospects for Progress: Achieving a High Level of Integration is Feasible*

There is substantial reason for optimism about the prospects for improving CJII. This study found that very high levels of overall integration have been achieved in some states and localities. Selected examples are described in some detail below. These examples can serve as lighthouses for integration efforts elsewhere by illustrating problems to be solved, successful strategies, and benefits to be obtained. In addition to successful examples of generalized integration, an even larger sample of integration-related initiatives are underway that have achieved many of their objectives. These initiatives are building the foundation for more complete integration, such as formal coordination bodies, data networks, and collaborative relationships. There is growing attention to the integration agenda in government at the local, state, and Federal levels, as well as in the news and professional media. This greater attention has been accompanied by increased allocation of financial and other resources to promote integration objectives. At the same time that attention and resources have increased, the cost of information technology has continued to decline, bringing higher capability within the budgets available for new initiatives.

### Wide Range of Integration Objectives and Achievements

There is much to be learned about building a successful case for CJII by examining how a wide range of integration objectives has already been achieved. This section describes examples of local and statewide initiatives that have achieved such success. Quite a wide variety of initiatives were identified in the several states and localities included in the study (see Appendix for a complete list of places included in interviews). A number of these at both the local and state levels could be called *comprehensive* in scope. That is, the objectives of the initiative included integration across the several kinds of agencies that generate and use criminal justice information (law enforcement, courts, etc.) and, where appropriate, across levels of government. For example, an initiative to develop statewide standards for data definitions and data exchange across levels and functions would be considered comprehensive. A larger number of initiatives were narrower in scope, addressing integration objectives for one function or agency, or restricted to one level of government. These are referred to as *selective*. Development of a data sharing application for the courts system or a statewide data communication network for public safety use would be considered a selective initiative. Since these different types of objectives usually involved somewhat different strategies and issues they are discussed separately. The initiatives of both types identified from the interviews are summarized in Table 1 (below).

**Table 1 Examples of Integration Initiatives**

| | Level of Focus | |
|---|---|---|
| **Scope of initiative** | **Statewide** | **Local** |
| Comprehensive | • Legislation for statewide Coordinating Bodies/agencies: California (proposed), NC, PA, WA<br>• Colorado CICJIS system<br>• Kansas<br>• Kentucky<br>• New Jersey: Criminal Justice Information System (CJIS) Integration of State Police, Bureau of Justice Services, Division of Corrections, and the Courts System<br>• New Jersey: A statewide oversight group meets on a monthly basis . Reps from the CJ community including (but not limited to) OIT, AG, DCR, DOC, OMB, State Police, Victims Board and Governor's Office . This group decides what initiatives will be funded with Federal and state money. In addition, any initiative must have a project manager that reports the progress of the project to this oversight board.<br>• Pennsylvania JNET | • Harris County's JIMS (integrated CJI system)<br>• LA County CCHRS<br>• McClean County, IL |
| Selective | • Indiana's "Hoosier SAFE-T" initiative to implement a mobile data network<br>• JBSIS Court system in CA<br>• Maryland: Corrections Information System (CIS) Integration of separate databases from different divisions (corrections, probation, pre-trial)<br>• Maryland: There are small CJ technology workgroups but no large oversight group.<br>• New York: concentration on major cities, central repositories | • Local LiveScan adoption (LA County) |

Along with widely varying objectives, the states and localities have a mix of histories for integration initiatives ranging over a 20+ year span. Integration initiatives that led to the current Harris County (Texas) system, for example, started as far back as 1977. California's mobile telecommunication efforts and data center activities have a similar longevity, as do a number of systems in other states. These systems with long histories continue to pursue new developments and at the same time new integration initiatives emerge continually at the state and local levels. Just this year, for example, the Indiana legislature created an Integrated Public Safety Commission, the Governor of Pennsylvania issued an Executive Order establishing a Steering Committee for a statewide criminal justice network, and North Carolina is putting the finishing touches on a statewide mobile data network for law enforcement.

The result of this mix of objectives and histories across states and localities is a complex weave of projects, issues, achievements, and problems, a patchwork quilt of integration initiatives. An

effective business case and argument for advancing integration initiatives must be tailored to its specific circumstances, to its particular corner of the quilt. To be widely useful in this kind of environment, support for business case development and promoting integration objectives must be versatile and adaptable. That kind of capability requires a good working understanding of the range of major organizational and political problems and issues faced in integration initiatives, and of successful strategies to overcome them. That working understanding, as illustrated by two well-known initiatives, is the focus of the discussion that follows.

**Integration Success at the Local Level: Harris County, Texas [4]**

*Getting Started:* The JIMS as an organization dates from 1977, when the County Court of Commissioners (legislature) created the JIMS department and Executive Board. That was the culmination of several years of planning and preparation, stimulated by a class action suit on jail overcrowding. The resulting review of jail problems revealed weaknesses in the information systems as well, prompting the County to seek major improvements of the three existing information systems, which did not communicate with each other. The courts and law enforcement agencies in the county, working with the data processing operations organization, undertook an in-depth analysis of information use by the entire criminal justice enterprise, which produced recommendations for a new data processing center to take over the operations of the three existing systems. Coincidentally, the county government had just installed a new main frame computer system. Other county agencies were slow to move to this new system, so it had substantial excess capacity available for criminal justice users. Thus results of careful planning converged with political pressure to act and the availability of new resources to provide opportunity for major change. The Commissioners responded and the formal development process emerged.

The fact that the system emerged as a highly integrated one can be attributed more to planning decisions than to good luck. That is, the political and organizational circumstances provided an opportunity and impetus for movement, but did not dictate the direction to be taken. The early planners and analysts chose the comprehensive approach. During the initial planning, two years were devoted to what one participant called "walking the track," a finely detailed examination and documentation of all the information uses and transactions involved throughout the criminal justice business process. This necessarily involved all the organizational units and personnel in the planning and analysis process, building support and ownership. When the time came to do something about criminal justice information, they chose to do something comprehensive, aiming for broad integration objectives from the beginning.

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[4] Harris County, including the city of Houston, is the third largest U.S. county in population according to current Census estimates, with a population of 3.2 million. The county covers 1788 square miles, includes 27 city or village governments in addition to Houston, rural areas, and a major seaport.

*Governance and Organizational Strategies:* At the policy and executive level, JIMS approach to governance was a mix of centralized and decentralized, or collaborative. It was comprehensive in that the Executive Board included the heads of all county agencies and courts involved in the justice enterprise. It is centralized in that policy decision making and control authority is located primarily in one body, the Executive Board, at the top of the agency hierarchy. Budget for JIMS operations was consolidated under the Executive Board. The new organization was given the authority over data standards, definitions, and elements, as well as responsibility for software and security. Decision making and operations, however, require interagency collaboration. The policy function of the Executive Board at the top requires the collaboration and agreement among 13 elected officials heading 12 different agencies.

*Mobilizing Resources*: Funding and resource mobilization for JIMS have evolved from ad hoc arrangements used to create the organization to a regular component of government operations. The initial budget was built with a mix of funds from existing data centers and operations. Over the JIMS life time the organization has moved from an ad hoc unit with resources gathered from several sources to a separate organization with its own line item, staffing, and governance. There has been a gradual increase in the size and funding of the operation, along with regular investment in enhanced technology and new capabilities.

The evolution of the funding arrangements and the overall development of JIMS appear to be more like a process of institution building than project development. It seems clear that the overall goal was to establish a permanent operation with ongoing needs for support, growth, and development, rather than a project with a limited development period and resource needs. Of course much of the ongoing work of JIMS is planned and implemented in a project methodology.[5] But those activities take place in an institutional framework of established assumptions about continuing operations, growth, and development requiring continuing support and investment.

*Technical Development Strategies*: Several elements of the JIMS development strategy seemed to be important in its success. One was that design and development decisions were based on a comprehensive and well-grounded understanding of information flows, business rules, and user needs. Another was designing an appropriate mix of centralized standards and controls with decentralized or distributed repositories and systems. The result was a mix of centralized and controlled components with flexible and adapted components for the collaborating agencies. A third element was taking an incremental approach to system development within a longer-range planning framework to develop components in smaller, more manageable steps as part of a long-range strategy.

*Current Status and Development Plans:* Overall, JIMS is a large operation. The current JIMS has a staff of 40 and an annual budget of over $2 million of County funds. The systems contain over 130 million criminal justice records and over 67 million civil justice records. The user community consists of over 15,000 individuals from 144 county agencies, 111 other local agencies and governments, 11 state agencies, 15 Federal agencies, and over 800 subscribers. From the original focus on criminal justice, the system has grown to include civil justice information as well. The current system already includes jury management and payroll processing as well as an extensive civil justice component, and a GIS system that can be adapted to differing agency needs. Plans for system enhancement extend well beyond basic law enforcement and court procedures to include

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[5] The current JIMS Director's Report mentions 403 projects completed in the preceding year, including a mix of development, maintenance, and production projects.
(http://www.co.harris.tx.us/jims/NewHome/Publications/Mostat/mostata.html#projects).

open warrants, address records, pawnshop data, gangs and gang members, and vehicle registrations.


**Integration Success at the State Level: Colorado[6]**

*Getting Started:* Integrating criminal justice information in Colorado began with a 1980s statutory commission to explore integration and provide legislative guidance.[7] Before expiring in 1994, the commission arranged for all agencies involved to testify before the legislature as to why integration still did not exist. The resulting "educated frustration" among the legislators led them to pass a new initiative in 1995 creating the CICJIS Task Force.[8] The Task Force was charged to jointly develop a strategic plan for the implementation and maintenance of an integrated criminal justice information system. The General Assembly adopted the strategy outlined in that plan and funded the effort. The Task Force presented the initial plan to the statewide Information Management Committee (IMC) in June 1996 and the final plan was approved in September 1996. In March 1998, three test pilot sites began evaluating the full system and the CICJIS went live statewide in May 1998. The annual CICJIS budget line is $1 million and another $400,000 of revenue from contracts.

*Governance and Organizational Strategies:* CICJIS was designed and operates under a centralized governance structure. The IMC has overall approval authority over CICJIS planning. An Executive Policy Board has business authority over the overall system. Operations of the CICJIS are the responsibility of a CIO who reports to the Executive Policy Board (EPB). There is a separate Drug Control System Improvement Program Board (DCSIP) that also reports to the EPB. The DCSIP Board oversees Federal grant money administered by Department of Criminal Justice and deals with long-term strategic issues regarding systems.

The CICJIS governance structure appears to be very top-down in nature. Executive level employees from each agency are the primary members of the CICJIS governing bodies. With this high-level, mandated participation came considerable expectations from the legislature for action. As a sign of these expectations, the statute creating the CICJIS contained project goals within the footnotes of the legislation. The participants had placed high expectations upon themselves since they were primarily responsible for the creation of the legislation in the first place. Local participation was sought and representatives from local jurisdictions were present at all levels.

*Technical Development Strategies:* The development approach was based on analysis of business requirements and an extensive business process mapping exercise of each component of the criminal justice enterprise.[9] The results indicated a strategy of integrating existing legacy systems

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[6] Much of the information used in creating this description came either from the CICJIS Web site <http://governor.state.co.us/gov_dir/cicjis/> or from an interview with David Usery, former Chief Information Officer, CICJIS Task Force.

[7] Other elements of the CICJIS have been around much longer: the Colorado Bureau of Investigation (CBI) Colorado Crime Information Center (CCIC) created in 1971; CCIC includes a statewide telecommunications system linking criminal justice agencies, fingerprint based identification, arrest, charge and disposition records, automated fingerprint identification system (AFIS), a criminal gang member identification and tracking system, a statewide incident based crime and arrest reporting system (IBRS), a domestic violence restraining order index, and a system for screening workers in child care, the elderly, and the disabled.

[8] The Task Force is comprised of the executive directors (or designees) of the Departments of Public Safety, Corrections, and Human Services, and the State Court Administrator.

[9] The maps can be found at http://governor.state.co.us/gov_dir/cicjis/Indproc/overview.htm

while maintaining their own independence as much as possible within their organizations. Information was to pass from one agency to another with as little disruption as possible to the environments of each agency. This did not assume that future reengineering or migration toward more common systems would not be necessary, only that getting the interdependency established with success was the primary first step. This approach has provided the ability to extract and join data across the entire CICJIS system for the purposes of decision support at all levels. This will allow for a complete criminal history that has up to this point been impossible to achieve.

*Measuring Success*: The CICJIS project included benchmarks from the inception of the project. Performance criteria were placed in the enabling legislation. This early focus on tangible outcomes was carried throughout the project.[10] A series of benchmark reports were scheduled throughout the project and six months after statewide implementation. The reports will cover the success of the four technological tasks to be accomplished: (1) the Index; (2) the transfer of data; (3) standard queries; and (4) drill downs into case specific information. At the time of this writing, these reports were unavailable.

*Current Status and Development Plan:* CICJIS is currently up and running. Several initiatives are underway to explore the functionality and utility of the system. The Board continues to meet and discuss the issues raised in the early implementation phase and seek solutions to the problems.

## *Overcoming Barriers to Achieving Integration Objectives*

These examples and a number of others collected during the study clearly show that efforts at enhancing integration can be successful. That success depends, however, on overcoming the many barriers to integration found across the sites we studied. This section discusses those barriers and examines ways they have been overcome.

### Turf

As one interviewee stated it, "Turf is the biggest killer of integration." Similar sentiments were expressed in all the interviews. It was clear that "turf" constitutes a major barrier to achieving integration objectives in most settings. To understand these barriers, it is necessary to analyze the concept of *turf* and explore the implications for enhancing integration.

As used in the cases we studied, the concept of *turf* seems to include at least three major reasons organizations act defensively: (1) to avoid the costs of change, (2) to reduce or control risk, and (3) to preserve autonomy or protect their position in a competitive or adversarial environment. Integration typically requires a degree of centralized control and shared decision making that could compromise an agency's control of its own operations or resources. Protecting turf can be particularly important when the potential loss of autonomy or control could benefit other agencies that are political or institutional adversaries. Since the agencies are all government organizations, political and institutional adversaries are part of the natural environment. In the case of the branches of government, maintaining independence and balance of power are legitimate concerns of each branch, based ultimately in constitutional structures.

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[10] The measures can be found at http://governor.state.co.us/gov_dir/cicjis/strategic/BENCH.html.

*Institutional Turf:* Institutional turf refers to the role an agency must play because of the basic institutional structure of government, as found primarily in Federal and state constitutions. The essential elements of this structure are independent branches of government with a balance of power among them. The role of courts and judges in integration initiatives clearly illustrates institutional aspects of turf. In the initiatives described in the study, courts and judges played varied roles; in some cases they exercised strong leadership and advocacy, while in others they were seen as more resistant and defensive. This can be accounted for, according to one analyst of court systems, by differences in courts' and judges' technical and administrative resources. Where court administration has been professionalized and judges are technologically sophisticated, they are more likely to support integration and take leadership roles. Where courts' and judges' knowledge is less advanced, information integration can make them more dependent on executive agencies, which are typically much more advanced in terms of management and information systems.

Since the participation of courts is central to integration, these particular turf issues are critically important, and not easily resolved. The judicial system's sensitivity to any threats to its independence is a legitimate concern. If the willingness of the courts to take a positive role in integration depends on their own administrative and technological development, then ensuring or enhancing that development is an important integration strategy.

A similar case of legitimate turf sensitivity involves the defense bar, and public defenders in particular. Defense attorneys' duty to seek the best defense for their clients can make them resistant to integration efforts that they perceive to improve law enforcement and criminal prosecution at the expense of the accused. But they do have an interest in ease of access to records and related materials that can be useful in defense. One public defender noted that the high cost of searching for and obtaining many paper records needed for defense planning and preparation can hinder the defense of indigent clients. Integration that improved the efficiency of access to those materials would be more likely to elicit support from the defense bar and reduce this particular form of sensitivity.

Within the executive branch of government, there can also be institutional rivalries and adversarial relationships. Attorneys General and Governors are independently-elected constitutional officers in most states. This is true of prosecuting attorneys and executives at the county and municipal levels as well. Political rivalries are thus often part of this institutional structure and must be taken into account in integration strategies. A number of the initiatives mentioned in the interviews originated with either a Governor or Attorney General. In these cases, the governance structures that were developed provided for shared authority across executive agencies and a mechanism for conflict resolution and collaboration.

*Organizational and Personal Turf*: Organizational and personal turf refers to the defense of status, power, or other resources that may be at stake for organizations or individuals in any particular integration initiative. Advancing integration of information requires collaboration and change at the personal and organizational levels; this involves potential costs and risks. Resistance to this collaboration and change is another form of turf defense, taking the form of unwillingness to enter into collaborative arrangements and agreements, or refusal to adapt organizational resources, structures, or procedures to the needs of integrated systems. There is the added risk of embarrassment or loss of status resulting from release of some kinds of information to the public or to other agencies. For example, local law enforcement agencies may be unwilling to incur the cost of instituting new booking procedures to fit with integrated arrest or identification systems. Similarly, courts may be unwilling to restructure case and calendar information in ways that make workloads appear smaller.

This form of turf problem appears to be the consequence of insufficient trust and incentives. The expected benefits from participating in the integration effort were too small relative to the cost of change or to the increased risk of collaborating with uncertain partners. The problem was common across the locations and initiatives we examined, but it was almost always solved or reduced to manageable levels. The successful solutions depended on building trust and increasing incentives, or making the resistant participants more aware of incentives and benefits, and controlling costs. These are described in more detail below.


**Diversity, Complexity, and Incompatibility**


Criminal justice activities take place in a highly complex institutional setting. This raises barriers and increases the difficulty of designing effective integration initiatives, and organizing the necessary collaboration among the participants. A few basic statistics illustrate the scope of possible variation. According to U.S. Department of Justice statistics, there are over 19,000 state and local law enforcement agencies in the country, over 3,000 local jails, and over 1,500 state and Federal prisons. State and local courts, which handle the great majority of criminal work, handle over 85 million cases a year, and approximately 1 million persons per year are convicted of felonies. This large volume of criminal justice activity is distributed over a complex matrix of state and local government structures. For example, Texas has 254 counties, more than a third of which have populations under 10,000, compared with Florida's 66 counties, only 5 of which have populations smaller than 10,000. Court organization in states can vary from uniform systems to complex layers of state, county, and local courts. There may be several types of trial courts in some states, or only one general trial court, as in Minnesota. Courts may be financed fully from the state level, or by a mix of state, county, and local funds. Similar variability is found in jail and prison systems, as well as in parole and probation functions. Inconsistencies in scale and structure are the rule rather than the exception.

Given this context, the prodigious variety in integration initiatives and technologies found in the study was not surprising. This can be another kind of barrier. Each of the states had developed its own approaches and most had multiple integration components or initiatives underway, either in comprehensive or selective forms. This diversity is reflected in the wide range of information technology investments and information systems already in place across levels and departments of the governments. The compatibility and consistency in applications necessary to create integrated systems is thus more expensive and complicated to design and develop.

The diversity is reflected in uneven rates of development and considerable range in technological sophistication among the jurisdictions in states. In some of the states in the study, the large cities had progressed faster than the state government agencies. Seattle, for example, was unwilling to wait any longer for the state of Washington to be ready to take action and has reportedly gone forward with its own integration initiative independently. The five major urban areas in Texas are also reportedly ahead of the state and are trying to resolve the resulting conflicts in approach that interfere with greater integration. Los Angeles County has achieved a level of integration well above that of the state of California. The barrier here seems to be uneven capacity to innovate or to adapt divergent technologies, rather than an unwillingness to collaborate or integrate information systems.

**Need for Champions, Coordination, and Standards**

A common theme in the successful initiatives was the importance of an effective advocate and mobilizer of action and support, usually referred to as a "champion." The research on innovation generally corroborates the importance of top level support and the need for effective advocates and leaders in promoting change. This factor may be even more important in the domain of criminal justice information integration, since there are so many complex barriers and problems to overcome. In almost all cases a person with considerable organizational or political influence played an important role, often described specifically as overcoming barriers or breaking up points of resistance. The champions described in these cases occupied a number of different positions: governors, attorneys general, a state police superintendent, chief judges, and occasionally legislators. In these cases the champion role required a position of considerable authority or leverage, plus a personal and/or political commitment to the integration objectives.

One role of champions, or other strong form of leadership, appears to be overcoming the resistance of separate, independent jurisdictions and agencies to accept coordination and standardization. The lack of this kind of leadership is a serious barrier to achieving integration objectives. A certain minimal uniformity and consensus on data, infrastructure, and procedures, as well as shared decision making, is necessary to achieve most integration objectives. Many of the actions of champions in the states and localities have been to initiate some kind of coordinating structure or policy, and to exercise power to persuade organizations to participate. This kind of coordinating function is critical to virtually all the integration objectives we encountered.

# Lessons About Success

## *Multiple Paths and Strategies*

Successful achievement of integration objectives is clearly possible by a number of different paths. The approaches we found across the states and localities revealed several creative responses to varied circumstances and resources. Many of the approaches involved the same objectives and styles of action, but differed in some details and sequences of events. What appear to be distinctive strategies are described below.

Several states and localities pursued what could be called a strategy of "full frontal assault" on their integration objectives. That is, the range of integration objectives involved all the agencies, functions, and levels of government accessible in that group of jurisdictions. The initiative included an overall coordinating and control structure along with comprehensive integration objectives. The Harris County JIMS is an example of such an approach at the county level, and the Colorado, North Carolina, and Pennsylvania initiatives are similar at the state level. The composition of the central coordinating or control body in these cases is typically made up of high level representatives of the principal stakeholder agencies and groups. These may be limited to the government officials from the criminal justice agencies involved, as in North Carolina, or extend to a broad range of government stakeholders, as in Pennsylvania. This comprehensive approach also covers most, if not all, of the main policy and technical matters involved in integration, such as standards, budgets, financial controls, infrastructure, and policy making.

An alternative to the comprehensive approach was the choice of limited, strategic targets or objectives. In some cases, the limited objective was chosen as part of a larger strategic plan. The immediate objective, such as a mobile data network or LiveScan fingerprint implementation, was seen as part of a sequence of phased steps aimed at more complete integration. In New York, for example, information systems integration was aimed primarily at the largest cities in the state, since they include the bulk of the population and criminal activity. In other cases, such as the Indiana court system integration project, an initial effort to develop standards was seen as a necessary building block for subsequent integration objectives.

There were a number of initiatives in which the limited objectives were not directly or initially linked to a broad integration agenda. The Project SAFE-T mobile network in Indiana was pursued for its own intrinsic value, rather than as part of a larger set of integration objectives. However, the Indiana Integrated Public Safety Commission, which is part of Project SAFE-T, will support continuing work toward other integration objectives. The Judicial Branch Statistical Information System (JBSIS) in California is a court initiative aimed at serving the statistical needs of that system, rather than a more general integration objective. In Florida, legislation for a statewide telecommunications infrastructure serves a similar particular need, but can also function as part of an integrated information system. It is not necessary for such initiatives to be part of some larger plan in order for them to improve integration in some way. However, in the absence of an overall integration plan and coordination structure, there is a greater risk that the various components will not fit well or efficiently into an integrated whole at some point in the future.

Another important element of success in many cases was a crisis or high visibility event that focused attention on the need to improve integration. In one state, a successful LiveScan initiative resulted from a failure to discover a new school janitor's violent criminal history in time to

prevent him from murdering a student. In another instance, police from three counties could not communicate well enough to coordinate the chase of an escaping bank robbery and murder suspect. In another state, inability of emergency workers to coordinate efforts in response to an airline crash stimulated a major integration effort. In these cases actual achievement of the integration objectives required leaders and agencies to take advantage of the interest generated by a precipitating event; the event itself was not enough. Other successful initiatives occurred without any tragic stimulus, but it is clear that such events, tragic though they may be, often provide clear opportunities for integration advocates to generate support and resources for new achievements.

In many cases, informal networking forms a key component of integration. There are many potential interested parties in any integration initiative. Their collaboration requires much communication and ongoing opportunity for interaction. Informal networks and other opportunities for joint effort are often necessary and effective in moving integration forward. Non-governmental groups in California have a long history of promoting integration efforts, including proposed legislation to create a statewide integration body. In the absence of state government action, local public safety officials in Alabama have formed an Alliance to promote new IT and integration efforts. At the national level, The Office of Justice Programs sponsored a workshop series that brought criminal justice professionals from throughout the country together to advance the integration agenda. A variety of informal meetings and visits among the professionals and political actors were reported as important elements in the development of all the initiatives we examined. These informal discussions and support building activities appear to be as important as formal coordination and leadership activities in achieving integration objectives.

Although the initiatives in the various states and localities followed their own paths, a "building block" approach was a common element in several of them. These approached information integration as if constructing the systems from a number of inter-related "blocks" or components. An overall vision or strategic plan guided the selection and order of blocks to be added in a logical sequence. For example, a number of cases identified the development of standards as a foundation block on which integration could be built. Therefore a standards development initiative may have been an early component. Another component may have been creation of a central coordinating or governing body, or communication network infrastructure. Each building block could be viewed as an integration objective, an achievement in its own right, and also as part of a growing system. This approach provides a long-range perspective and logic for development that is adaptable over longer time periods. It also recognizes the need for continuing support and resources to advance the overall integration agenda.

These varied organizational strategies may be reflected in the technical architecture of the systems as well. The integration initiatives we reviewed all fit in the typology developed in a recent review of integration issues.[11] That typology distinguishes between *unified integrated systems*, and *coordinated integrated systems*. In the unified type, a single design concept is developed to meet all the functional requirements. This frequently involves a single database or central computer system, but the components and data may be distributed across different sites and agencies. In a coordinated system, the design and architecture follow agency lines, and use different platforms, applications, and operating systems. They agree only on basic data structures and business rules. The systems also differ in what is called a step-phased development versus an application-phased development strategy. In step-phased development, functional requirements

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[11] Bureau of Justice Assistance. *System Integration: Issues Surrounding Integration of County-level Justice Information Systems*. Washington, D.C.: U.S. Department of Justice, Office of Justice Programs, 1998.

for all are determined first, and operational implementation of a system is roughly simultaneous for all users. The Harris County development appears to follow this model In application-phased development, the entire application is developed in one agency first, then expanded agency-by-agency. Some of the court-based systems fit this model, developing integrated systems for their needs before expanding integration to other agencies.

## *Necessary Ingredients*

There were a number of consistencies among the integration initiatives that suggest some necessary ingredients for success. One is *coordination*. Coordination and control mechanisms of one sort or another were part of every initiative, and integration seems unlikely to advance without an effective mechanism to support communication, collaboration, and some sort of authoritative decision making among the many players in the enterprise. In most cases, this mechanism was the result of policy making or executive action in the form of legislation or executive order. The resulting governing or coordinating body thereby has authority to exercise some direction and control over developments. This was the case where a so-called "full frontal assault" was underway. In some cases there was no authoritative body, but the interested parties created functioning informal mechanisms. Examples are the Forum on Justice and Public Safety in the 21st Century in California and the Alabama Law Enforcement Technical Alliance. Informal mechanisms are less likely to produce or support a comprehensive integration effort but rather promote more selective approaches.

Closely connected to a coordinating mechanism are the development of *trust*, *participation*, and *buy-in*. A number of key participants in these initiatives described the process as primarily political, not technical. That is, success was more dependent on forming successful relationships and building trust than on using any particular technology. Since integration necessarily involves many possible conflicts and competing interests, there are ample opportunities for distrust and defense of turf. Careful attention must be paid to building trust and buy-in through power sharing, positive incentives, and emphasizing both shared and individual interests and objectives.

One of the key reasons for the importance of trust, participation, and buy-in is the importance of *standards* in the achievement of integration objectives. Standards that represent agreement and consistency in data elements, their definitions, data manipulations, operational procedures, and application design are necessary to most integration efforts. Decisions on standards typically require individual agencies or jurisdictions to lose some control over their own operations and often incur costs to change procedures, train staff, or adopt new equipment or applications. In other words, standards are often expensive and burdensome, albeit necessary. Agreeing on standards and accepting those costs usually requires considerable trust in the overall operation and governance structure, as well as buy-in to the overall design and vision of expected benefits.

Initiatives based on more comprehensive *planning* and a *long-range perspective* also seemed to achieve a wider, more systematic range of objectives. This observation may be in part a result of the wide differences in time frames across the many initiatives. The oldest ones had 20+ year histories, while the newest were less than a year old, or in some cases pending actual implementation. Integration efforts that have been underway for a long time are naturally more likely to reflect a concern for planning and a long-range perspective, but it is not clear which is a cause and which an effect of success. However, the histories of the longer duration efforts do suggest an answer to this puzzle. The efforts that were based on comprehensive, long range plans

from early stages, such as in Harris County, have achieved a more comprehensive and systemic set of objectives. By contrast, California has several integration initiatives of long duration, but has not had a comprehensive plan. The result is a mix of relatively loosely-connected projects and separate systems.

The development of effective information flows and system designs also requires a well developed *understanding of the business process*. The design of information architectures and applications requires clear and highly-detailed knowledge of the specific procedures that generate or use criminal justice information. Since the operation of the entire criminal justice enterprise involves hundreds of complex procedures spread over many agencies and locations, building the necessary knowledge base is a very large but necessary task. In Harris County, the mapping of procedures and requirements in the required detail took two years. Without that level of understanding of operations, the design of an integrated information system will not be able to support and enhance the business processes.

Without sustained input of *adequate financial resources*, of course, these other ingredients cannot be effectively employed. It is also clear that the approach to financial support should reflect the institution-building perspective described above, rather than spending for discrete projects. That is, the maintenance and continued development of integration requires an ongoing commitment of resources. Information technology quickly becomes obsolete. Developing capacity for information integration can generate demand for even more capability. And, the number of possible integration objectives and operational features is quite large and will continue to expand as the technology evolves.

## *Useful Ingredients*

A number of other factors, or ingredients, were clearly helpful in promoting greater integration in the cases studied. The effect of what some participants referred to as "peer pressure" was helpful in some cases. Some agencies or jurisdictions felt a competitive pressure to improve their own integration capacity when a peer agency or jurisdiction improved theirs. Some also reported increased demands for improved integration from political actors and the public prompted by growing sophistication about what is possible with rapidly improving information technology. This was characterized by the surprised, "What? You can't do that already?" response from persons who learned about limited integration capacities. These increased expectations for information systems in the criminal justice enterprise were also attributed to the more general "reinventing government" movement and the related emphasis on efficiency, innovation, and improved service delivery.

External support for networking, sharing strategies, and discussing problems has also been a valuable resource for integration. The Office of Justice Programs has been quite active in this regard and the 1998 workshops were often mentioned as important networking and collaboration resources. The support by the Government Technology Conference and Prof. Clark Kelso for collaborative groups in California was also cited as a valuable resource for that state's integration efforts.

## *Assessing the Benefits*

One of the goals of the study was to identify the benefits, either expected or achieved, of enhanced information integration. What is seen as a benefit depends to some degree on the perspective and the agency involved, but there was a clear pattern in expectations of benefits relative to improved decision making. Reducing risk to officers is a consistent theme among law enforcement agencies. Better and more integrated information provided to officers at the points of critical decisions and dangerous interactions not only enhances their safety, but also reduces risks to others they encounter. This also lowers potential liability for mistakes made due to incomplete or poor quality information. The court systems tend to view better integrated and complete information as a tool for improved court management decisions, as well as for improved case-related decisions. Prosecutors and defense attorneys need the most complete information to make good strategic decisions on charges, plea bargaining, and other tactics. The Harris County Prosecutor's use of the JIMS system reduced the total number of cases filed by over 40 percent, but greatly increased the successful disposition rate due to better evaluation of cases based on better information. Jail and correction officials need complete and integrated information to make appropriate classification and assignment decisions on inmates. And, parole officers desire information as complete and integrated as possible to manage their cases. The financial benefits from these improved decisions had not been studied or documented in the cases we examined, so there are no estimates of return on investment. But there was clear consensus that justice professionals attach a high value to these benefits.

Another benefit is reduced exposure to liability for mistakes. The possibility of mistakes that are very costly or do severe harm is higher in the criminal justice enterprise than in many other government areas. The potential costs are therefore high and savings from reduced errors can be substantial Eliminating redundant data entry reduces the possibility of errors and can improve data quality as well. As with improved decisions, estimates of actual savings due to error reduction were not available.

Benefits in terms of administrative efficiency were also reported. Though typically not the primary reason for an integration initiative, cost savings can be substantial in some operational areas. These include reducing or eliminating redundant data entry and paper work, reducing delays in accessing information, reducing costs for searching and retrieving information, and avoiding delays in procedures through better coordination. Comprehensive cost analysis data from a fully integrated system were not available but some selective savings have been estimated for some systems. In the Los Angeles County CHHRS (Consolidated Criminal History Reporting System), retrieval time for criminal histories was reduced from an average of 2-3 hours per query to less than a minute. This represented a savings of substantial magnitude for that process alone. The CCHRS also replaced older, more expensive systems. Estimates of waiting time for a LiveScan fingerprint identification in California show a reduction from as much as 17 days for the previous method down to 2 hours. McLean County (Illinois) reported that their integrated system reduced officer time on booking paper work from an average of one hour for three suspects to eight minutes. For court systems, additional efficiencies are possible. Courts are estimated to incur as much as half of their total costs in processing paper and SEARCH estimates that California's Attorney General's office spends as much as 30 percent of its time on paper work. Even small percentage savings in these areas can represent substantial amounts. Efficiency in court administration can also be improved by avoiding the time and costs of aborted meetings when necessary information is unavailable or access is delayed.

## Assessing the Costs

Because the cases we examined involved such a wide variety of integration initiatives, implemented over disparate time periods and circumstances, the cost estimates and reports provide only a very rough guide for planning. The consensus among those who participated in the study was that integration initiative are potentially expensive, but still clearly cost-effective overall. This consensus is based in part on the partial but impressive kinds of cost savings estimates described. Estimates of total development costs for integrated systems, however, were not widely available because the few existing implementations were developed over extended time periods (multiple budget cycles) and used a mix of new and previously-installed components. The available examples do give a rough indication of the range of costs involved. The strategic plan for Alaska's integration initiative includes a budget estimate of $84 million over four years. Sarasota County (Florida) recently implemented an integrated system at approximately $5.9 million for hardware, software, and services, but not all infrastructure costs. It is estimated to save $2-3 million per year. The Harris County JIMS has an operating budget of $2.2 million per year, and is estimated to save considerably more than that in overall time and operational costs. A preliminary study for North Carolina estimated that the planned integration initiative would cost approximately $91 million statewide plus an additional $300 million for an 800 MHz mobile communication network. Much of that system has been implemented, but over an extended time period, so the accuracy of the initial estimates is in doubt. A cost-benefit study was done for Los Angeles County CCHRS in its early years (1993-94), showing comparable savings, but it has not been updated and may no longer apply.

Mobile data networks and systems have been installed or upgraded as separate projects in a number of jurisdictions, yielding some overall cost figures. A survey of 39 states in 1997 (done for the Indiana SAFE-T project) reported costs of mobile voice and data systems. The costs per voice radio unit varied widely, from less than $2,000 per unit to over $60,000; mobile data units ranged from $3,500 to over $60,000. These variations are a result of different features in the systems and great differences in the cost of infrastructure (i.e., towers, networks) due to the size and topography of the states.

Full analysis of the costs of integration would have to include more than just the investment in information technology. Training of personnel will be a major component of any integration initiative. These can approach the cost of hardware and software in many instances. Maintaining the overall coordination and control structure involves maintenance as well. This would include salary and staff support for those who serve on governing and coordinating boards or commissions. Most importantly, the overall cost of any system would include ongoing maintenance, improvement, and expansion.

A number of creative approaches to funding and supporting integrated systems were encountered during the study. California funds a portion of the maintenance and development of its LiveScan fingerprint system by performing fee-for-service background checks for employers. Another state used excess capacity in a statewide health network to support integration of criminal justice information flows. North Carolina persuaded local jurisdictions to provide space on their towers for a mobile data network, rather than having to build new towers for the state system. As a result, only two new towers were required for the statewide system. Harris County also provides fee-for-service functions for other agencies in its jurisdictions that require access to information in the JIMS databases. With such creative approaches, the overall cost of integration can be reduced and the benefits made available to a wider array of participants.

# Implications for the Business Case

There is much to learn from these initiatives for the designers of business cases for new integration initiatives. All of the designers and builders we studied faced significant obstacles and complex problems. The many successes that we found were not the result of applying simple formulas or simply taking advantage of fortuitous circumstances. Instead the successful results followed from a combination of opportunities, leadership, careful planning, and coordinated, sustained effort. We also identified some more specific elements of successful strategies that can help guide business case development.

## *Need to Tailor Strategy to the Time and Place*

The study showed clearly that even though there were consistent themes and initiatives, every jurisdiction has its own set of unique problems and opportunities. Each has a variety of stakeholders with dissimilar interests and goals. Consequently, the most effective business cases will be tailored to those particular circumstances, including the extent of integration achieved through previous efforts. This suggests that the business case materials should include tools to assess the political and organizational environment, technical capacities of existing systems, as well as the capacity of the participating organizations to undertake the proposed activities. The materials should also emphasize methods and resources rather than specific cases that may not be appropriate to many settings.

## *Importance of Buy-In*

Effective buy-in for any integration project appears to depend on careful attention to interests and incentives. That is, mobilizing support and buy-in by the full range of necessary players requires understanding of their needs and objectives. Authoritative, top-down approaches are useful for only part of the process, particularly around issues of standards, priorities, and funding. The collaborative and integrative parts of an initiative require commitment by the full range of participants. Thus the relationship between the functions and features of the integration initiative and the interests of the participants become an important part of the design. The case materials and methods should therefore include tools and techniques for stakeholder analysis and identification of benefits and costs, as well as marketing and persuasive tools for generating enthusiasm and support.

It is also clear from many of the accounts of successful initiatives that grassroots efforts at communication and commitment building are often necessary. Integration typically involved many local agencies and jurisdictions whose participation is essential to overall success. One participant talked about "attending every sheriff's meeting for a year" to talk about the initiative and encourage participation. Therefore, the business case materials should include strategies for the grassroots part of the initiative. These strategies could include assistance in how to develop persuasive presentations, print materials for distribution, and techniques for eliciting information about interests and needs from potential participants.

## *Importance of Planning*

The complexity of integration efforts, in both technical and organizational terms, means that careful planning is an important element of success. The case materials should, therefore, include tools and support for effective planning. Business case resources could include examples of plans and planning techniques used effectively in other initiatives. It would also be useful to have brief descriptions of planning and strategy-making tools. Financial planning is an integral part of the case development. So some attention in the materials should be given to financial planning tools, such as budget building techniques, scenario building and what-if analysis, capital investment analysis, and returns on investments.

## *Federal Role in Funding*

Support from the Office of Justice Programs, and other U.S. Department of Justice divisions, has been a vital part of many of the current and past integration initiatives. Therefore the business case materials should contain information and tools to support requests for Federal funds. These materials should include descriptions of the various programs that provide funding, procedures for application, and possibly examples of successful applications and proposals. State and local level decisions to concentrate Federal funding on integration activities have been a successful part of the initiatives in a number of states and localities. This strategy can be an important part of the business case. That is, the case for local and state support should also include persuasive arguments for concentrating Federal funds in the same way. However, information integration is not the only possible use for Federal funds. State and local criminal justice agencies may have other priorities in mind for these resources, such as more personnel or other kinds of equipment. Making a strong case for integration can be a source of conflict with agencies that have other agendas. Deciding how to avoid or deal with these possible conflicts then becomes part of the overall planning and strategy-building effort.

## *Organizing the Pitch*

Many of the participants in the interviews described the process of persuasion necessary for these initiatives as "selling the project" or "making the pitch." Therefore tips for understanding and successfully employing basic marketing and selling techniques should be part of the case materials. These could include basic descriptions of concepts and methods for understanding the potential market and the customer, discovering needs and preferences, and effective communication and persuasion. Part of the "selling" component will be based on information and analysis described above, such as stakeholder analysis and strategic planning. Tailoring of the pitch to the particular audience can then be part of the overall plan. Since the audience will vary, a well-grounded understanding of what works with various audiences is an essential part of planning the approach. Political leaders, for example, do not all have the same preferences and agendas; legislators tend to specialize in certain areas, so finding the right legislator is part of the strategy. Governors have very limited time and highly-defined priorities. Judges are careful about judicial autonomy. Staff to elected officials are often key gatekeepers in access and defining agendas for their employer, so making a case to staff often precedes access to an elected official. These and other elements of planning a "selling" campaign can also be valuable parts of the overall case development guide.

# Appendix: Candidates for Telephone Interviews
**(Business Case Project)**

1.      AL - Roy C. Washington, Director, Administrative Services, Mobile County Sheriff's Office, 109 Government Street, P.O. Box 113, Mobile, AL 36601, Tel: 334-690-8710, Fax: 334-690-8540, email: hgolemon@acan.net (use an inside addressal to Roy since this is a shared email address)

2.      **[No Interview]**CA - Clark Kelso, Professor of Law, University of the Pacific McGeorge School of Law, 3200 Fifth Avenue, Sacramento, CA 95817, Tel: 916-739-7104, Fax: 916-739-7072, email: ckelso@uop.edu

3.      CA - Fern Laethem, Office of the State Public Defender, 801 K Street, Suite 1100, Sacramento, CA 95814, Tel: 916-322-7439, Fax: 916-327-0707, email: laethem@ospd.ca.gov

4.      CA - Hon. Thomas (Tom) Cecil, Presiding Judge, Sacramento Superior & Municipal Courts, Court Technology Committee Chair, 720 9th Street, Dept. 47, Sacramento, CA 95814, Tel: 916-874-7012, Fax: 916-874-8229, email: tcecil@jps.net

5.      Thomas F. (Tom) Gede, Special Assistant to the Attorney General of California, 1300 I Street, Sacramento, CA 95814, Tel: 916-323-7355, Fax: 916-322-0206, email: gedet@hdcdojnet.state.ca.us

6.      **[No Interview]** CO - Pat Ahlstrom (Pat was the Director of Public Safety for the State of Colorado until he retired very recently. He would be a good contact, but I don't have current contact information for him. His previous secretary can be reached on  303-239-4398 - her name is Debbie Hartman - she should know how to reach him now - she was out today or I would have called her myself)

7.      CO - David Usery, Ex-CIO for the State of Colorado's Public Safety Department, now a consultant out of his home in Colorado (he does a lot of consulting for SEARCH), 1505 Grand Avenue, Canon City, CO 81212, Tel: 719-269-3715, Fax: 719-276-3082, email: dusery@rmi.net

8.      FL - Ken Palmer, State Courts Administrator, Florida State Courts System, Supreme Court Building, Tallahassee, FL 32399, Tel: 850-922-5081, Fax: 850-488-0156, email: osca@flcourts.org (this is a collective address so the inside address must be to Ken)

9.      FL - Gary Yates, Director of Research Planning, Florida Department of Law Enforcement, P.O. Box 1489, Tallahassee, FL 32302, Tel: 850-410-7001, Fax: 850-410-7150, email: garyyates@fdle.state.fl.us

10.      IL - Terry Gough, Bureau Chief, Bureau of Identification, Illinois State Police, 260 N. Chicago Street, Joliet, IL 60432, Tel: 815-740-5243, Fax: 815-740-5174, email: goughte@isphost.state.il.us

11.      IN - Les Miller, Special Counsel to Superintendent, Indiana State Police, 100 N. Senate Street, 3rd Floor, IGCN, Indianapolis, IN 46204, Tel: 317-232-8317, Fax: 317-232-5682, email: lmiller@isp.state.in.us

12. KS - J. Carey Brown, Director, Criminal Justice Information System, Office of the Attorney General, 301 SW 10th Avenue, 2nd Floor, Topeka, KS 66612-1597, Tel: 785-296-7266, Fax: 785-296-0191, email: brownjc@at02po.wpo.state.ks.us

13. KY - Michael (Mike) Losavio, Information Systems, Administrative Office of the Courts, 100 Mill Creek Park, Frankfort, KY 40601, Tel: 502-573-2350, Fax: 502-564-6855, email: mitchell@mail.aoc.state.ky.us

14. LA - Catherine D. (Kitty) Kimball, Associate Justice, Supreme Court of Louisiana, 301 Loyola Avenue, New Orleans, LA 70112, Tel: 504-568-7757, Fax: 504-568-7756, email: ckimball@scla.org.

15. MD - Art Crawmer, Director of Classification, Maryland Division of Correction, 6776 Reisterstown Road, Suite 310, Baltimore, MD 21215, Tel: 410-764-4141, Fax: 410-764-4182 (No current email address)

16. MO - Gerald E. (Gerry) Wethington, Director, Information Systems Division, Missouri State Highway Patrol, 1510 E. Elm, P.O. Box 568, Jefferson City, MO 65101, Tel: 573-526-6200, Fax: 573-526-6274, email: gwething@services.state.mo.us

17. NC - Ron Hawley, Assistant Director, North Carolina Bureau of Investigation, Division of Criminal Information, 407 N. Blount Street, Raleigh, NC 27601-1009, Tel: 919-733-3171, Fax: 919-715-2692, email: rhawley@mail.jus.state.nc.us

18. NC - Major George Ake, Director of Research and Planning, North Carolina State Highway Patrol, 512 N. Salisbury Street, P.O. Box 29590, Raleigh, NC 27626-0590, Tel: 919-733-5282, Fax: 919-733-2161, email: gake@ncshp.org

19. NCSC - Thomas A. (Tom) Henderson, Executive Director, Office of Government Relations, National Center for State Courts, 1700 N. Moore Street, Suite 1710, Arlington, VA 22209, Tel: 703-841-0200, Fax: 703-841-0206, email: thenderso@ncsc.dni.us

20. NJ -Steve E. Long, Director, Data Processing and Facilities Management, Office of the Attorney General,25 Market Street, P.O. Box 081, Trenton, New Jersey 08625-0081, Tel: 609984-2398, Fax: 609-292-8268, email: lpalong@smtp.lps.state.nj.us

21. **[No Interview]** NJ - Stanley (Stan)  Repko, Director, Divison of Policy and Planning, Department of Corrections, Whittlesey Road, P.O. Box 863, Trenton, NJ 08625, Tel: 609-984-4578, Fax: 609-633-2112 (No current email address)

22. NY - Dan Foro, Director, Office of Systems, NYS Divison of Criminal Justice Services, 4 Tower Place 9th Floor, Albany, NY 12203-3702, Tel: 518-457-8724, Fax: 518-485-1237, email: foro@dcjs.state.ny.us

23. OR - Lt. John Tawney, Oregon State Police, Criminal Justice Information Systems Project, 400 Public Service Building, Salem, OR 97310, Tel: 503-378-3720, Fax: 503-378-8282, email: john.tawney@state.or.us

24.     RISS- George March, Director, Office of Information Technology, Regional Information Sharing Systems, P.O. Box 155, Thorndale, PA, Tel: 610-466-9940, Fax: 610-466-9950, email: gmarch@iir.com (Retired Supt.of Pennsylvania State Highway Patrol)

25.     [**Didn't actually speak to him**] SEARCH - Dave Roberts, Deputy Executive Director, SEARCH Group, Inc., 7311 Greenhaven Drive, Suite 145, Sacramento, CA 95831, Tel: 916-392-2550, Fax: 916-392-8440, email: david.roberts@search.org

26.     SEARCH - Kelly Harris, Manager, Technical Assistance Program, SEARCH Group, Inc., 7311 Greenhaven Drive, Suite 145, Sacramento, CA 95831, Tel: 916-392-2550, Fax: 916-392-8440, email: kelly.harris@search.org

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