

The following core set of strategies are being employed in the initiatives examined in this study to deal with and overcome key barriers to information integration in the justice enterprise.

### Retain autonomy of the involved agencies

A strategy regularly adopted in the cases studied is the recognition and retention of the autonomy of different agencies involved in the integration initiative. As a group, members of each initiative made decisions together, but the members were respectful of individual agency decisions concerning each agency's information and infrastructure. An example of this is the Colorado Integrated Criminal Justice Information System (CICJIS). Each agency participating in the initiative maintained its own legacy system and made most of the decisions pertaining to the information contained within it.

This kind of integration strategy was employed in the cases studied, and was seen as a first step to more comprehensive and integrated projects requiring process or infrastructure integration.

### Establish and exercise a governance structure

A well-organized governance structure was considered a success factor in each integration initiative studied. Each case benefited from a well-organized governance structure charged with providing leadership, defining goals and objectives of the project, and enabling efficient analysis of policy environments and technical solutions. A governance body was considered an important coordination and control mechanism for the agencies involved in an initiative. Each case recognized and acted on the need to have policy-level members in the governance structure. Through the various governance structures members were provided the capacity to make decisions and build agreements with their partners. The governance bodies provided a venue for cross-boundary integration teams to explore the diversity of their organizational goals and to focus on establishing a shared goal for the integration initiative. The governance bodies also provided a venue for the necessary debate that surrounds the development of system and data standards necessary to support interoperability.

The Commonwealth of Pennsylvania Justice Network (JNET) executive council is comprised of ten governing agencies. The executive council is responsible for establishing the policy and strategic vision of the integration initiative.

Table 3. Useful integration strategies

Integration strategy	Integration barriers addressed
Retain autonomy of the involved agencies	<ul style="list-style-type: none"><li>• Turf and resistance to change</li><li>• Environmental and institutional complexity</li></ul>
Establish and exercise a governance structure	<ul style="list-style-type: none"><li>• Organizational diversity and multiple goals</li><li>• IT and data incompatibility</li></ul>
Secure strategic partnership	<ul style="list-style-type: none"><li>• Environmental and institutional complexity</li><li>• IT and data incompatibility</li></ul>
Build on long-range and comprehensive planning	<ul style="list-style-type: none"><li>• IT and data incompatibility</li><li>• Environmental and institutional complexity</li><li>• Turf and Resistance to Change</li></ul>
Build understanding of the business process	<ul style="list-style-type: none"><li>• Organizational diversity and multiple goals</li><li>• Environmental and institutional complexity</li></ul>
Secure adequate financial resources	<ul style="list-style-type: none"><li>• IT and data incompatibility</li><li>• Turf and resistance to change</li></ul>
Obtain and nurture executive leadership and legislative support	<ul style="list-style-type: none"><li>• Turf and resistance to change</li><li>• Environmental and institutional complexity</li></ul>

### Secure strategic partnerships

Participants in successful integration initiatives have formed strategic partnerships within the justice community, beyond the justice community and with the private sector. In the integration initiatives studied, participants consider success to be more dependent on forming strong relationships and building trust than on using any particular technology. Using strategic partnerships was found to be effective in helping teams deal with the complexity of the environment. Some projects found that partnerships with end users were critical to their success. These partnerships resulted in access to multiple perspectives on justice business processes and the use of integrated information. In addition, technical assistance provided by vendors appears in several initiatives as a success factor. A positive effect of the partnership with private vendors was the impact on IT and data incompatibility issues. In one case, public-private partnerships resulted in an improvement of technical expertise concerning a specific piece of hardware or software.

The Commonwealth of Pennsylvania had success in using technical knowledge from the private sector in developing its integration initiative. It has also had success with outsourcing its technological support to outside companies. In Minnesota, the executive director of Minnesota Business Partnership was able to successfully explain to the State Legislature how applying corporate "best practices" could help the State with its criminal

justice information integration initiative.

### Build on long-range and comprehensive planning

Most organizations involved in the cases studied engaged in comprehensive planning before starting with the development and implementation of their integration initiative. This prior planning allowed integration efforts to exist within a broad strategic view of integrated justice. Indeed, according to Cresswell and Connelly (1999), initiatives based on comprehensive planning and a long-range perspective achieve a wider, more systematic range of objectives. Prior and ongoing planning efforts in the cases allowed for the identification of environmental complexity and resulted in the adoption of short and long-term strategies to address this complexity. Planning also informed change management strategies and specific technical development efforts. Early integration planning highlighted the need for an interoperable technical infrastructure to support integration. A number of the cases invested early on in cross-boundary standards efforts to support interoperability.

Harris County designed its integration initiative with future needs in mind. Likely needs for support and growth were considered in the development of the County's Justice Information Management System (JIMS). Similarly, Delaware developed an incremental approach that included long-range planning and periodic enhancements.

### Build understanding of the business process

According to Cresswell and Connelly (1999), the design of information architectures and applications requires clear and highly-detailed knowledge of specific procedures that generate or use criminal justice information. Successful organizations have this highly detailed knowledge about their business processes and a solid understanding of the reasons why they are engaging in integration projects. Each of the initiatives demonstrated a good understanding of their own processes as well as the processes of their partners. They used the work of building this understanding to identify and highlight organizational similarities and differences. For example, they were able to identify how a single data element was viewed and used differently by different agencies, and even by different units within a single agency. Process analysis efforts allowed integration teams to reduce complexity by making the processes of each agency explicit.

Delaware staff talked to every user of the system to understand their needs and have a clear picture of the processes of the different agencies involved in the initiatives. These efforts also resulted in the shared understanding for how each process supports or does not support the shared goal of the integration effort and the specific and appropriate goals of each individual agency.

### Secure adequate financial resources

Adequate financial resources were identified as necessary to take advantage of the promises of information integration projects. Support from state and federal grants was considered a persistent success factor. How resources were used also seemed to influence success. Using resources in an enterprise-wide manner, in particular, was found to be a factor in achieving success. Financial support was often seen as an incentive to reduce resistance to participation. In addition, the cases indicate that the availability of financial support resulted in more agencies being willing to move forward on the changes necessary to support technology and data compatibility. Adequate financial resources allowed those agencies that were resistant based on a lack of their own resources to consider the opportunities of integration independent of the impact on local, already constrained budgets.

Many of the initiatives reviewed in this study received funding from state or Federal sources. However, governments have found other ways to fund integration initiatives. For example, in Marin County, the Criminal Justice Information System began when key officials from four neighboring counties in California pooled money to begin its development.

### Obtain and nurture executive leadership and legislative support

Successful projects have either a strong executive champion, the support of the legislature, or both. Obtaining the support and buy-in from an executive leader or a legislative body necessary for an information integration project to move forward is critical. Integration efforts require organizations and individuals to change. In a number of the cases, leadership support was critical to efforts to secure necessary change. Securing the necessary change in the cases studied required an open and collaborative process, and clear and consistent leadership support.

At the state level, legislative support is considered essential for the success of broadly based integration initiatives. The complexity of the environment and the sometimes unclear lines of authority were found to be less of a barrier in those cases where the legislature provided leadership and support to the initiative. In most of the cases studied, the legislature was closely involved in the design, implementation, and evaluation of the initiative.

In Colorado, a Statutory Commission of the Legislature was a key player in establishing the state's comprehensive integration initiative. In Delaware, the State Legislature played a major role in the development of the Delaware Justice Information System (DELJIS).

---