Center for Technology in Government

Why Assess Information Sharing Capability?

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Government faces many challenges that can be addressed more successfully when information is shared across organizational boundaries. These challenges differ widely in scope and complexity. One may involve linking the different databases and case management processes in a single human services agency where organizational units operate under one executive leader, working toward a common goal. Another challenge may involve enterprise-level initiatives, such as a statewide crime communications network, consisting of many different agencies at several levels of government engaged in diverse but overlapping business processes using similar, if not identical, information. Some challenges, such as emergency response, are so extensive that they require information sharing and work processes that cross the boundaries of the public, private, and nonprofit sectors.

Initiatives that depend on these kinds of information sharing are typically complex, difficult, and prone to failure. They are more likely to succeed when they include a comprehensive and systematic assessment of both organizational and technical information sharing capabilities. Such an assessment identifies the strengths and weaknesses of all participants, points out risks and risk mitigation strategies, and therefore leads to better planning and execution of cross-boundary programs and services.

Understanding Information Sharing Capability

The concept of information sharing capability used here comes from a combination of research and consultation with government professionals. It balances two different notions of capability. First, that capability can be assessed along a set of generic dimensions that apply in practically any information sharing situation. Second, that these generic dimensions may be applied or interpreted differently, depending on the nature of a particular initiative. Therefore different initiatives would be expected to have different profiles of capability across these dimensions. This approach is reflected in four assumptions about information sharing capability.

Capability is:

- *multidimensional*—it is made up of several dimensions, all of which contribute to overall information sharing capability.
- *complementary*—high or low overall levels of capability can result from different combinations of factors, high levels in some dimensions can often compensate for lower levels in others.
- *dynamic*—it can increase or diminish due to changes within an initiative or in its external environment.
- *specific to its setting*—some elements of capability apply to all settings, but capability for any particular project must be assessed relative to its own specific objectives and environment.

The interorganizational nature of most information sharing efforts suggests two additional ideas for capability assessment.

First, *the success of information sharing depends on the combination of capabilities that exist among the sharing partners*. Not all organizations need the same capability profile. Instead, the

combination of capability profiles across a set of agencies sharing information determines the effectiveness of an initiative.

And, second, *the knowledge and experience required for effective assessment can be found in the people working on the effort*. The necessary combinations of knowledge and experience may not exist in a single organization, but may be available as a result of joining forces across the multiple organizations involved in a cross-boundary sharing initiative.

Dimensions of Information-Sharing Capability

Through an extensive field analysis of justice agencies and program initiatives, we identified 16 major dimensions of information sharing capability. Taken together, these dimensions capture the interacting influences of organization, policy, and technology on information-sharing initiatives in any government domain.

Dimensions of Information-Sharing Capability	
1. **Business Model and Architecture Readiness**	The degree to which the initiative has developed business models and enterprise architectures that describe the service and operational components of the enterprise, how they are connected to each other, and what technologies are used to implement them. These descriptions may include detailed analyses of business processes.
2. **Collaboration Readiness**	The degree to which relationships among information users and other resources support collaboration; these include staff, budget, training, and technology, and prior successes or failures in collaborative activities.
3. **Data Assets and Requirements**	The extent of specification and identification of formal policies for data collection, use, storage, and handling, as found in documentation of databases and record systems; and in data quality standards and dictionaries. It may include procedures for and results of data requirement analyses and data models and modeling techniques.
4. **Governance**	The existence of mechanisms to set policy and direct and oversee the information sharing initiatives that are planned or underway.
5. **Information Policies**	The level of development of policies that deal with the collection, use, dissemination, and storage of information as well as with privacy, confidentiality, and security.
6. **Leaders and Champions**	The involvement of leaders and champions. Leaders motivate, build commitment, guide activities, encourage creativity and innovation, and mobilize resources; they see the goal clearly and craft plans to achieve it. Champions communicate a clear and persuasive vision for an initiative, provide the authority and legitimacy for action, and build support in the environment.
7. **Organizational Compatibility**	The degree to which the work styles and interpersonal relationships, participation in decision-making, levels of competition and collaboration, and styles of conflict resolution support information sharing. Compatibility of cultures may be gauged by the degree of centralization, degree of conformity, deference to authority, adherence to rules, and symbols of status and power.
8. **Performance Evaluation**	The presence of the skills, resources, and authority necessary to observe, document, and measure: (1) how well the initiative itself is developed and implemented, (2) whether information sharing goals are achieved, and (3) how the performance of the justice enterprise is improved
9. **Project Management**	The availability and use of methods for goal setting, scheduling development and production activities, analyzing resource needs, managing interdependencies among activities and goals, and provisions to anticipate and

	respond to contingencies.
10. Resource Management	The extent of effective use of financial, human, and technical resources through budgeting, strategic plans, financial analyses, and accepted financial management procedures and practices.
11. Secure Environment	The degree to which appropriate security protocols for data, systems, applications, and networks as well as systems, policies, training, and management practices are in place.
12. Stakeholder Identification and Engagement	The extent of awareness of and interaction with the persons or groups with an interest in the information sharing initiative and capacity to influence it. This dimension is based on stakeholder analyses, staff experience and knowledge, records or reports of participants in making policy and decisions, and membership of advisory or constituent groups.
13. Strategic Planning	The quality and comprehensiveness of strategic plans and planning processes, including resources, integration of strategic planning with governance and management.
14. Technology Acceptance	The extent of talk and actions expressing positive or negative attitudes toward workplace changes, trust of new tools and techniques, success or failure stories that are widely shared and believed, and enthusiasm for innovations.
15. Technology Compatibility	The presence of agreed-upon standards, the extent of connectivity among those seeking to share information, and the experiences of staff with information sharing activities.
16. Technology Knowledge	The levels of knowledge about current and emerging technology for information sharing, including technical qualifications and experience of staff, records and documentation of technology assets, and the actions of staff in compiling, storing, and sharing such knowledge.

Capability assessment consists of rating an initiative (or some part of it) along these dimensions, treating each as a continuum from high to low. For example, an organization is not simply ready for collaboration or not; instead, it falls somewhere on a continuum from not at all ready to fully ready. The figure below shows how the dimension of collaboration readiness can be characterized from high to low.
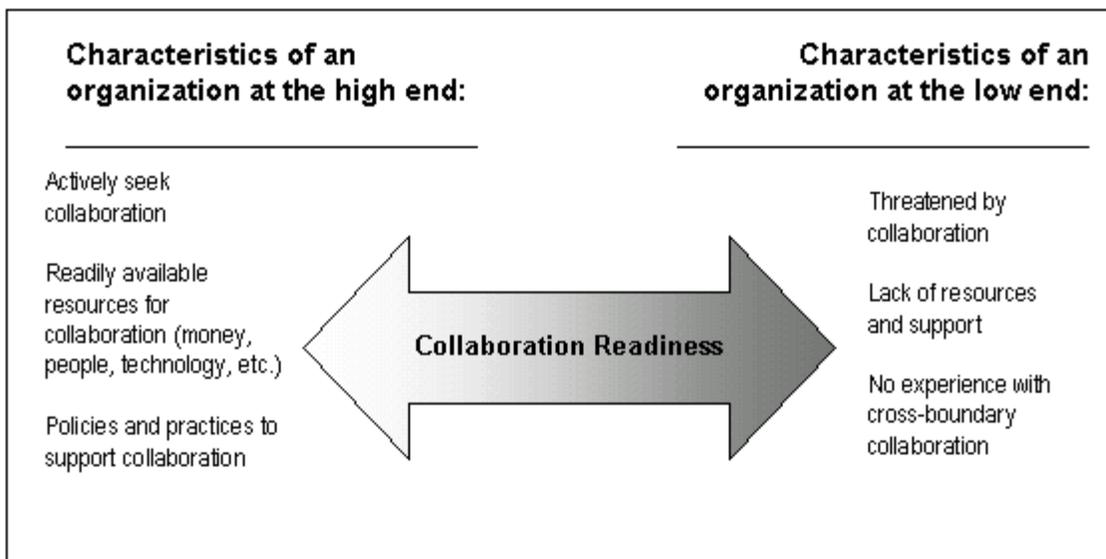
These characterizations of high and low capability are the starting point for assessment. To be most useful, the capability ratings should be based on evidence, discussed among the participants, and weighted for importance. Techniques for doing all this have been developed for particular kinds of capability assessment and are readily available.

Critical Success Factors for Capability Assessments

An assessment may be conducted by expert facilitators or by the participants themselves. There are many possibilities for organizing an assessment, collecting and analyzing data, and making decisions based on the assessment. (These are all presented in *Sharing Justice Information: A Capability Assessment Toolkit*, http://www.ctg.albany.edu/publications/guides/sharing_justice_info). However, regardless of the choices made about format, venue, or tools, these four critical success factors strongly influence results.

Trust and Candor
The success of the assessment depends in large part on the willingness of participants to make assessments and decisions based on solid evidence. Participants must be willing to freely share information about their own organizations and about the capabilities of their sharing partners. Such a willingness helps build an accurate assessment of the initiative as a whole. It also helps identify gaps in capability and strategies for addressing them.

Individual and Organizational Commitment
Capability assessment requires a high level of commitment from all participants and organizations to carry out a labor- and time-intensive endeavor. Considerable effort and time are needed to gather the necessary information, make capability judgments, participate in group discussions, resolve differences, reach decisions, and develop action plans. The endeavor also requires logistical support from participating organizations.

The Right Mix of Participants
Assessing information sharing capability requires specific knowledge and experience. The selection of participants should result in teams with the right mix of knowledge for the situation at hand. It is not necessary (or possible) for every participant to be an expert on every aspect or dimension of capability. What matters is to get the needed expertise by putting together the right team. This team should include program specialists, IT specialists, and program and agency leaders from each participating organization. Collectively, the participants must have knowledge of the program environment, existing systems, and possible future strategies and technologies.

Willingness to Repeat the Assessment As Needed
The complexity of information sharing initiatives and the changing nature of information needs and technologies suggest that assessments should be repeated over the life of an initiative. Through repeated assessments, emerging requirements can be taken into consideration and new capabilities and problems can be identified. Likewise, action plans can be refined in light of new requirements and resources that are identified through repeated assessments.

For more details and information about implementing capability assessments, see:

Sharing Justice Information: A Capability Assessment Toolkit (written guide)
http://www.ctg.albany.edu/publications/guides/sharing_justice_info

Sharing Justice Information: A Capability Assessment Toolkit (interactive toolkit)
http://catoolkit.ojp.gov/introduction

Building State Government Digital Preservation Partnerships: A Capability Assessment and Planning Toolkit, Version 1.0 (written guide)
http://www.ctg.albany.edu/publications/guides/digital_preservation_partnerships