Information Use Tools and Skill Sets
Seminar Summary

A Summary of Seminar #2 of the
Using Information in Government Program Seminar Series
May 4, 1999

Center for Technology in Government
University at Albany / SUNY

Summary

The Center for Technology in Government (CTG), through the Using Information in Government (UIG) Program, has worked for more than a year with New York State agency project teams and partners from the public, private, and academic sectors to identify benefits and strategies for integrating and using data for program planning, evaluation, and decision making. The policy, management, and technology issues identified through our work with the agency teams were shared with the public in a series of seminars focused on increasing the value of existing information to government programs. This report summarizes the presentations given at the second session of the Using Information in Government Seminar Series, "Information Use Tools and Skill Sets," which was held on May 4, 1999 at the University at Albany.

All business decisions require information. But with the emergence of new technologies, it has become harder for managers to know what analytical tools they should use to get the most out of their information for planning, evaluation, and decision making. The "Information Use Tools and Skill Sets" seminar addressed public managers' needs for new skill sets, information-related competencies, technical tools, and techniques to ensure that relevant information is identified and used. The seminar included five presentations and a panel discussion.

- Theresa Pardo, project director at CTG, set the stage for the half-day seminar with her presentation on "Information Use Tools and Skill Sets: Keeping Up with the Times."
- Jochen Scholl, graduate assistant at CTG, discussed "Knowledge Management Tools."
- Two representatives from the NYS Department of Health, Research Scientist Peter Lannon and Data Processing Technical Services Manager Robert Pennacchia, presented the case titled "New Tools and New Skills to Improve Access to Information: Medicaid Managed Care Encounter Data System."
- Frank Winters, director of the NYS Department of Transportation' s GIS Unit, discussed his department' s "New Tool to View and Analyze Capital Program Plans: Executive GIS Capital Program Viewer."
- Michael Mittleman, chief information officer of the NYS Office of Mental Health, presented a case on "New Tool to Monitor, Control, and Assess Overtime Consumption: Overtime Analysis Intranet Application."
- The seminar concluded with a panel discussion featuring the six presenters.

Information Use Tools and Skill Sets Seminar Summary

Welcome

Meghan Kiernan, project management specialist
Center for Technology in Government

Meghan welcomed everyone to the second session in the Using Information in Government Program Seminar Series. The objective of the Seminar Series is to share the lessons learned in the UIG program with New York State government program and information technology managers. The Seminar Series began on February 4, 1999 with a session on "Dealing with

Data." "Information Use Tools and Skill Sets" were covered on May 4. The Series will continue with "What Rules Govern the Use of Information" on October 5 and "Using Information in Government: Two Years of Lessons Learned" in January 2000.

The focus of the May 4 session was to provide an overview of the UIG program, explore information use tools and skills sets, look into knowledge management, hear about real life cases from the NYS Department of Health, Department of Transportation, and Office of Mental Health, and engage in a panel discussion.

She recalled the genesis of the UIG program, which began in the summer of 1997 when information resource and program managers responded to a New York State Forum for Information Resource Management survey about the types of issues they encounter when trying to use information for planning, evaluating, and decision making in their organizations. CTG held a kickoff meeting to identify the problems public sector managers encounter in using government information to do their jobs. That meeting yielded many information use issues, including: lack of incentive to share; lack of understanding of the value of integrating data and using it to support decision making and planning; lack of understanding of the technical, human, and organizational requirements; and lack of understanding of the real potential of the technology.

Out of these issues, CTG identified a set of objectives for the UIG program:

- recommend policies or policy templates to guide public officials in their use of government information;
- develop and assess data standards, inventories, and quality assurance tools;
- develop and assess the cost-benefit models and other measures of information value;
- specify the information use skills necessary for government professionals and recommend ways to acquire them;
- assess the cost effectiveness of various technical tools and techniques;
- and develop collaborative and collective resources for data users.

For more than 14 months, CTG has been working with state agencies on projects that explore the information issues and meet program objectives. The practical products of this work will include: a set of practical guidelines for developing an IT business case, the UIG Seminar Series, a cost performance model for projects that focus on information sharing, case studies, and recommendations for the NYS Office for Technology about their information use policies. The first phase of UIG involved projects with the Office of the State Comptroller' s Division of Municipal Affairs (OSC), the Central New York Psychiatric Center (CNY), and the Office of Temporary and Disability Assistance' s Bureau of Housing Services (BHS). From these projects, we have learned several lessons, Meghan said. CTG and the project teams learned that the way information is used and interpreted has evolved to the level that new skills are required. Increased access to information in its varied formats requires organizations to change the way they train employees to access and use that information. Simply placing new technologies with extensive functionality on desktops does not ensure the most effective use of information; information literacy needs to be the focus.

Meghan detailed how the UIG program is continuing. CTG is conducting an evaluation of the first round, which included focus groups with project teams to gain insight on how to design the second round. Follow up consulting is being conducted with two teams, OSC' s Division of Municipal Affairs and the CNY Psychiatric Center. The Bureau of Housing Services and CTG are working on an innovation project, the Homeless Information Management System, which will be prototyped and evaluated this summer. The projects for round two were just selected and were scheduled to be announced publicly in late May.

The speakers for "Information Use Tools and Skill Sets" were:

- Theresa Pardo of CTG who spoke about "Information Use Tools and Skill Sets: Keeping Up with the Times;"
- Jochen Scholl, also of CTG, who discussed "Knowledge Management Tools;"
- Peter Lannon and Robert Pennacchia of the NYS Department of Health who covered "New Tools and New Skills to Improve Access to Information: Medicaid Managed Care Encounter Data System;"
- Frank Winters of the NYS Department of Transportation who discussed "New Tool to View and Analyze Capital Program Plans: Executive GIS Capital Program Viewer;" and
- Michael Mittleman of the NYS Office of Mental Health who spoke about "New Tool to Monitor, Control, and Assess Overtime Consumption: Overtime Analysis Intranet Application."

Information Use Tools and Skill Sets: Keeping Up with the Times
Theresa Pardo, project director
Center for Technology in Government

Theresa provided the audience with an overview of how decision support tools have allowed UIG project teams to use information more effectively and robustly in UIG projects. Her observations about these tools and skill sets come out of mid-course outcomes in the program, which is continuing now with a second round of projects.

Data repositories have been in use since the 1960s. The model, which involves a repository of data that serves as input to decision support tools for analysis designed to inform business management processes, has remained the same. The questions that we need the data to answer are what have become increasingly complex. "We' re all inundated with the pressures to pull together data to support decision making and to use data better and more effectively," Theresa said. Today, decision support systems and data warehouses are considered the most important technologies in the world (according to a 1997 survey of 1,443 CIOs by Deloitte & Touche).

There are several policy and technology trends driving the changes in the nature of and feasibility of large data repositories to support decision making. In terms of policies, the public sector is transitioning to outcome-based measures and budgeting processes. For example, in CTG' s Homeless Information Management System (HIMS) project, New York State' s Bureau of Housing Services needs to track how services are affecting the homeless population. A simple head count is no longer sufficient; today the agency needs to find out not only how many people are in the system and the types of services they receive, but also if those services are helping

them break out of the cycle of homelessness. Theresa noted that customer-focused marketing is also finding its way into the public sector. This process finds patterns that enable government programs to do a better job of marketing their services to the public. This type of analysis requires large volumes of data. Technology trends include: high-volume transaction systems, scaleable information technology, parallelism, memory enhancements, the World Wide Web, client/server networks, and relational online analytical processing.

There are a number of opportunities, as well as risks, associated with the use of large volume data repositories, she said. Half of all data warehousing projects fail, most often because of a lack of understanding about why access to integrated information is valuable and how this combined information will be used. The data that populates warehouses has to be appropriate, usable, and clean. Theresa shared an anecdote about one private company that spent five years and $15 million building a data warehouse, which ultimately sat dormant because the data was dirty. As Theresa said, "The data is a critical part of the process."

In the Using Information in Government Program, CTG spends a lot of time teaching system users to understand just how important it is to get usable forms of data, which will then help them do their jobs. The barriers to using government data for planning, operations, evaluation, and decision making are the focus of UIG investigations. Some of those barriers include:

- Lack of information use skills on how to search, assess, analyze, and present data;
- Lack of definition of managers' roles with no incentive to broaden their skills base;
- Lack of management support and incentives for government managers to become competent data users; and
- Lack of end users' understanding of the process and benefits.

And to add more difficulty to the situation, public sector managers have to deal with IT workforce shortages. "Not only are we asking people to use data differently, we' re also asking them to do it using smaller IT staffs," Theresa said. Managers have to make choices about IT staffing and training and decide which new skills have to be made available to their staffs. Organizations must conduct strategic thinking and planning in order to ensure their program, research, and IT staffs have the required information-related competencies. Managers must make training, education, support and hiring strategies for acquiring and maintaining information use skills a priority.

Theresa described some of the information use issues CTG has encountered in the UIG projects. While technology is a focus of each project, the core work often involves examining existing business processes and policies and developing new ones. Organizations have to know what questions they want answered in order to determine what information is important in a system. "This is not technology; it' s new thinking. This is a lengthy and tedious process. It' s not the IT people, but the program people who can say which data is important and should be included in the system," Theresa said. Agencies have to create standard definitions of their services and data in order to get usable and authentic results out of it. Confidentiality policies have to be constructed to protect the people to whom the data refers.

All in all, new skills are required throughout the process:

- Users need to see the value in the use of the data
- Facilitators have to draw out business models

- Managers need to map business models to data sources
- Designers must draw out and capture new data models
- Developers have to work with new design models and tools
- Users have to get value out of the result
- Everyone must provide and assess feedback at every step

Theresa reiterated that the data repository model of using information to feed into decision support tools that affect management processes is still valid. "The model has not changed. But, the skills needed to do this kind of work are changing very, very rapidly," she said.

Knowledge Management Tools
Jochen Scholl, graduate assistant
Center for Technology in Government

Knowledge management is a hot topic in management circles today, Jochen said. While some people treat knowledge management as a fad, the concept does have very real benefits for managers looking to spark learning and change within their organizations. He noted that many private companies die early deaths, at enormous costs, and that this happens even when the economy is doing well. Jochen said knowledge management is a tool that can be used to ensure the vitality and life of both private and public sector organizations. "The organization' s health has a direct correlation to that organization' s knowledge and learning," he said.

In order to understand the concept and components of knowledge management, you have to define knowledge. Jochen said knowledge is equal to information plus understanding; knowledge is information in a context that supports proper decisions and actions. Knowledge management builds on this definition and involves tacit and explicit knowledge, intellectual capital, knowledge as stock and process, culture, measures, and technology.

- Tacit knowledge, that which is present but difficult to express in words, is part of knowledge management. When an organization taps into a person' s tacit knowledge and uses it to better the organization, then it is transformed into explicit knowledge.
- Intellectual capital, another component, involves human, structural, and customer resources, such as intellectual property rights and trademarks.
- Knowledge is also stock; people may have competence, but they aren' t proficient until they have the experience to apply that knowledge to effect change. People have to capture, generate, replicate, and recycle knowledge.
- Knowledge is also a process. You can learn a new skill, but it takes insight and feedback to learn about how you learned that skill. This "double loop learning" is a necessary step to acquiring real knowledge.

In order for a change in individual or organizational behavior to occur, unlearning must take place. "To unlearn a behavior is much more complicated than to learn a behavior. Learning is living, and living is learning," Jochen said. An organization' s culture also affects learning and changes in behavior. He said, "Organizational culture is one of the major blocking factors for learning to occur and change to take place. Most organizations have cultural inhibitors to learning and change."

Technology also has a place in knowledge management. There are a number of available systems and tools, such as e-mail, document handling systems, and computer-based training, that make it easier for people to learn. "Technology is often an enabler to learning, but this is all restricted to codifiable knowledge," Jochen said.

The key is using knowledge management to increase organizational vitality. "It is not only important to learn, but it' s also important to change. If you' ve got an organization that is bad at learning and changing, you' ve got a fatal organization. A vital organization can translate learning into change," Jochen said.

In summary, Jochen indicated that knowledge management is, at the least, a technology issue, and, at the most, a human resources issue. Organizational knowledge builds on and depends on individual knowledge. While individual knowledge can be leveraged, there are some fundamental limitations that technology is unable to overcome. Technology does, however, help in accessing untapped knowledge. And without an organizational culture that is conducive to sharing and learning, no leverage and growth can occur.

New Tools and New Skills to Improve Access to Information:
Medicaid Managed Care Encounter Data System (MEDS)
Peter Lannon, research scientist
NYS Department of Health
Robert Pennacchia, Data Processing Technical Services manager
NYS Department of Health

The NYS Department of Health' s (DOH) Medicaid Managed Care Encounter Data System (MEDS) is the product of the department' s decision to require mandatory enrollment of Medicaid recipients into managed care plans. Peter indicated that statewide enrollment in managed care plans is expected to grow from about 650,000 members to 2.2 million over the three-year implementation phase. The partners in this project, including the Department of Health, county departments of social services, managed care plans, and oversight agencies, all have a vested interest in using information about the plan and its enrollees for evaluation and decision making purposes. Peter discussed how these organizations each need a variety of information to monitor service utilization, access to care, and the quality, appropriateness, and continuity of care for enrollees. The need for all this information led to the development and implementation of MEDS.

The data for the system is collected by assorted methods, such as through workshops, satisfaction surveys, on-site reviews, and clinical studies, in an integrated approach. Peter detailed some of the data collected: encounter type, provider and member identification, date of service, diagnosis, treatment provided, and Medicaid claims. When creating MEDS, Peter said the department had to consider issues like how to store the data, what methods to use to retrieve information quickly, and how to provide access to the data to a variety of users with diverse information needs.

Robert discussed the development of MEDS, which began about two years ago, and the solutions DOH came up with to deal with these data issues. The first solution was to establish a data warehouse that would get all the data logically linked and contained in one place. The warehouse architecture includes ad hoc query functions, which have proven to be the fastest way to get customized information out of the repository. The department also chose to include a decision support application. "We wanted to provide managed care organizations with a more controlled environment where they could have most of their questions answered. We also wanted to provide this through Web access," Robert said. The resulting Health Provider Network is an Intranet application that allows the various managed care plan partners to access information. Through the use of ad hoc query and OLAP (online analytical processing) tools, MEDS provides extensive results with manipulation and reporting functionality.

Robert detailed the kind of requirements and skill sets that were necessary to create and implement these solutions.

- The department had to encourage collaboration between system designers, developers, and programmers, as well as between program managers and information users.
- Those involved also performed careful assessments of the business requirements of the system.
- System development managers were required to work on their communication and facilitation skills in order to develop expertise in user business, clearly articulate business questions and requirements, and translate business needs into technical specifications.
- Business and program managers needed to develop analytic skills, for identification of business questions and relationships between data elements, and communication skills, in order to teach the business side of things to the technical staff.
- Users needed to develop their general PC skills, including Windows operation, file management, Internet browsers, and print menus.

Other sets of skills were necessary in order to use the information housed in MEDS. General analytical skills – such as understanding the available data and formulating questions – were required. Intermediate analytic skills – necessary to work with spreadsheet applications, calculate rates, and present information – were also required. Advanced analytic skills – involving relational database queries, relational data model development, and using SQL (structured query language) – were also necessary.

The development and deployment of the Department of Health' s MEDS program created an opportunity for the business and program managers to share skills and information with the technical team members. The groups worked together, mentored each other in their areas of expertise, and created a good system to track, assess, and manage the state' s Medicaid managed care plans.

New Tool to View and Analyze Capital Program Plans:
Executive GIS Capital Program Viewer
Frank Winters, GIS Unit director
NYS Department of Transportation

The GIS Capital Program Viewer was developed by the NYS Department of Transportation (DOT) as a way to provide executives with up-to-date information on department activities throughout the state. Whether it' s pinpointing plans to alleviate where traffic is congested in Albany or the status of a bridge resurfacing project in Buffalo, the system uses geographical positions as a way to access data. The department spent about a year developing the system, which was rolled out May 3.

Frank discussed the user interface functions of the program viewer. DOT started out with a commercial software package (ArcView). He then built a user interface into the software and customized it to meet DOT' s needs. The program viewer is easy for executives to read and use because all the vital information is presented on one page. The program also has a limited number of controls designed to aid in the ease of use. "We just provide some base mapping and some hooks to these positional identifications. It dynamically takes tabular data and applies it to the map," Frank said. DOT officials can access maps of the entire state and query by such elements as project cost, assembly district, and date. "Just being able to zoom around and tell someone what DOT projects are going on in an area is a powerful tool for our executives," Frank said.

DOT' s GIS program viewer was constructed by following a modular development strategy. The viewer is not a new data system. "We' re tapping into and exploiting existing systems. People can take their information and plug it into GIS, so it' s not changing data ownership," Frank said.

The flow of data is an integral component of the program viewer. The system allows DOT executives to pull up reports on department activity at any time. This is much quicker and easier than the old method, which involved requesting a report, pulling data, cleaning the data, and then putting it together in hard copy format. With the program viewer, the data is cleaned at the point of input. While this is much more efficient, it also represents a change for the organization. "That' s a culture shift in our department," Frank said. Ultimately, "The data is only as good as it' s explicitly entered, and only as useful as our common understanding of it."

The DOT' s new GIS Capital Program Viewer is a flexible and dynamic system that enables department executives and other staffers to easily access information about projects.

New Tool to Monitor, Control, and Assess Overtime Consumption:
Overtime Analysis Intranet Application
Michael Mittleman, associate commissioner and chief information officer
NYS Office of Mental Health

The NYS Office of Mental Health (OMH) has been around for more than 140 years, and is currently in charge of 28 hospital facilities with 6,500 inpatients and 25,000 outpatients. There are 16,000 professional and clinical staffers to care for these patients. In recent years, OMH has paid out as much as $25 to 30 million in overtime costs. "We think this is something controllable," Michael said.

"Senior management in the OMH central office and its facilities recognized the need for a new management tool to monitor, control, and assess the nature and quantity of overtime consumption," he said. "In addition to controlling costs, the benefits of such a tool could be expanded to identify understaffed job titles, aid in redistributing pass days between staff, and evaluate overtime episodes requiring closer examination and possible management intervention."

When designing the new information system to monitor and analyze overtime costs, Michael said OMH staffers knew what they wanted. "We opted for a Web-based system. The Windows motif, GUI (graphical user interface), was very attractive to us. There needed to be a certain cachet about it that these are cutting edge tools," he said. One of the major requirements was that the tool had to involve only a small amount of training for end users. The system also had to present a wealth of overtime data – including dates, quantity, and costs – at both the state and facility levels. Charts to graphically depict the results of ad hoc queries and reports based on those queries were also a necessity. The overtime analysis tool had to be very versatile and current. Users can view overtime by job title, facility, dates, days of the week, and salary level, and the information is updated every pay period. Michael said the resulting overtime analysis Intranet tool has all of these components.

In addition to system components, designers had to also consider the users' requirements. "How has this changed the skill sets for state workers?" Michael said. When using this type of system, users require the following information competencies:

- Overcome technological phobias
- Exploit the available information resources
- Know how to interpret tables and graphs
- Understand the statistics
- Draw conclusions from multiple views of the same data
- View the PC as a personal tool to make new information

"One of the challenges that falls back onto the IT department is to come up with a display system that converts data into information and have the viewer smart enough to translate it and apply it in a business plan," he said. "There' s a great deal of data available. It' s part of our mission to make people data aware, helping them see how they can translate available data into information they can use to run the program."

Overall, ensuring that users have the skills to use the data in your new information system is just as important as the system design. The system will only be effective if users understand how to access, interpret, and apply the data. "Digesting the data is not the same things as knowing the data," Michael said.

Panel Discussion
Moderator: ***Sharon Dawes, director, Center for Technology in Government***
Panelists: ***Theresa Pardo, Jochen Scholl, Peter Lannon, Robert Pennacchia, Frank Winters, Michael Mittleman***

Sharon asked the panel, "If New York State established 'preferred information competencies' similar to our ' preferred IT standards,' what might they be?"

- Michael said quantitative skills for managers are an important competency.
- Frank noted that the technology end is the easy part. Understanding data and the business processes that generate that data are more complex. "We really have to look at the data vertically for the organization," he said.
- Peter indicated that training should be included on any list of information competencies. Users need to be trained on new systems, but they also need training in some of the more basic PC and software skills.
- Jochen said cultural aspects of organizations need to be considered. "You never deal with technology in isolation. You never deal with information in isolation. You also have the cultural aspects," he said.
- Theresa noted that modeling skills should be taught. It' s imperative for people to look at business models and know how to use them. Program managers and others need to understand the business questions and see the big picture. In addition, Theresa said tenacity is a valuable trait. "People have to stick with the business problem as long as they possibly can," she said.
- Robert said the ability to work as partners is crucial. The IT team and the management team have to be able to share skills and learn from each other in order to work together successfully.
- Frank added that basic relational database skills are also important.
- Members of the audience added their own contributions to this list of "preferred information competencies." One individual said bringing the right people to the table is crucial. Organizations need to identify the stakeholders and make sure they are involved in defining the business problem.
- Another audience member said facilitation skills are important to learn. People must be taught facilitation skills and then be encouraged to use them.
- Another person noted the dual context of these business problems. Managers need be aware that their day-to-day processes fit within the overall organization. He said that changing one process out of context of all the others can be catastrophic.
- Someone else mentioned the importance of outside-the-box thinking. People have to be flexible and look at the end product of what they want to achieve and not get hung up on how they' ll work to achieve it.

Sharon asked the panel, "How do we acquire these competencies? What strategies have you used in putting these skills on current employees?"

- Robert said he would identify the best people to work on specific projects. Try to identify workers' unique skills and place them on projects that lend themselves to applying those skills. He also is an advocate of computer-based training and classes.
- Jochen noted that CTG uses two models to encourage skills development by staffers. The Center has affiliations with private sector companies that allow employees to take advantage of partners' skills and knowledge. The Center also gets assistance from academic institutions in the form of gradate students.
- Theresa said she' s an advocate of learning by doing. She suggested organizations bring consultants in with the understanding that they're there to build skill sets and transfer knowledge. This allows for a kind of mentoring relationship to develop. She mentioned that

state agencies could work together to learn new skills and then go back to their departments to teach others what they learned.

- Peter indicated that standing meetings with users are important in DOH' s efforts to train the users of their new decision support system. He said users appreciate having a regular forum to share experiences, ask questions, and pass on skills.
- Michael suggested reaching out to those workers who are well respected and get them to participate in development teams. The participation of admired peers helps get the buy in of the rest of the staff. And, the system itself is better for having the expertise of key staffers incorporated into its design.
- Frank echoed previous comments about the importance of getting the right people. He said state agencies often view civil service as a hindrance. But, he said public sector managers should view civil service as a way to weed out unqualified people and hire those with the right skills. And in terms of acquiring skills, "the race to not be last" will take care of people who are at the bottom of the pile.
- Theresa noted that timing is critical when it comes to training workers. "If we' re going to invest in skills, there must be opportunities for people to apply those skills and build on them," she said.

Sharon asked the panel, "How did you gather the information about your users and make the match of putting the best tools with your users' needs?"

- Robert said DOH asked its users what they needed, looked at the available technology, and then made their decisions.
- Frank said DOT tried to build a "critical mass" of support behind one kind of application. The fact that DOT workers were already using the software in the field helped them build consensus for that program.
- Michael recommended compiling a project checklist, with such components as the potential impact, budget, timelines, and political implications. He suggested plugging the components into a spreadsheet, looking at the various options, and examining how the options fill the needs.
- Jochen said the amount of training required for people to use the system should be a factor. A complex, high end tool that requires massive amounts of training may not be the right choice if a less complicated tool that is easier to use fulfills the necessary functions. "The choice we tend to make is to go for the mightier tool. But, we may want to go for the one that has just the fundamentals and much better ease of use," he said.
- Theresa talked about CTG' s current Homeless Information Management System (HIMS) as an example of how important it is to consider the skill level and needs of the end users. In HIMS, many of the users will be small shelter providers who don' t need high end analytical tools. These kinds of users just want a profile of who they're serving and the outcome of those services. Knowing this puts the lion' s share of burden on the system designers and developers, and not the end users.

Sharon opened the floor to the audience. Several members posed questions to the panelists. One person asked how the agency representatives distribute data tables to users.

- Robert said that in the DOH system, users can click on the item they want to query and a box pops up telling them all the information about that item.

Gail Croteau of the Office for Technology asked panelists how they go about developing and nurturing the support of upper management personnel.

- Frank said knowing your audience is crucial. "We realized that by knowing our commissioner, that he would understand this, that he would like it, and that he would support it," he said. It' s important to identify people comfortable in the realm of IT and information systems. And, you have to show managers how the proposed system will help deliver on a core business need of the agency.
- Peter said support often comes when people are required to do something. "Ours is a very complicated system and people higher up have been willing to let us just go to it," he said.
- Michael said the way to engender support from executives is to spend time building their trust in you. For example, Michael said he makes sure that he answers managers' MIS questions within an hour. A track record of reliable, prompt, effective service is crucial to gathering support for new projects. "Build credibility with them," he said.

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