

## Summary

CTG is the lead government partner in a nationwide effort to build a National Technology Infrastructure for the twenty-first century. Funded by the National Science Foundation, the infrastructure will enable the United States to stay on the leading edge of science and technology by integrating computational, collaborative, visualization, and information resources into a powerful "National Technology Grid."

The governing organization, the National Computational Science Alliance (Alliance), organizes the efforts of more than 50 research centers across the United States. Headed by the National Center for Supercomputing Applications (NCSA) at the University of Illinois at Urbana-Champaign, the Alliance includes top-notch research partners from educational institutions, national laboratories, industry, and supercomputing centers across the country.

In this partnership, CTG joins other educational and research organizations in helping to identify, develop, and disseminate innovative applications of advanced technologies to the practical problems of federal, state, and local governments.

## Publications & Results

### Practical Guides (1)



#### Making Smart IT Choices: Understanding Value and Risk in Government IT Investments

Wed, 01 Apr 2004

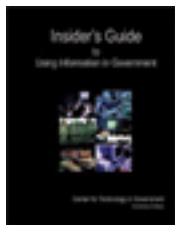
IT innovation is risky business in every organization. In the complex public sector environment, these risks are even greater. This handbook is designed to help any government manager evaluate IT innovations before deciding (with greater confidence) to make a significant investment.

Why evaluate information technology (IT) choices? Because IT innovation is risky business in every organization. The public policy choices and public management processes that are part of government make it an especially difficult environment for IT managers. These layers of complexity present a daunting challenge to public managers who are responsible for choosing, funding, and building IT innovations.

Government managers need to evaluate IT choices because they are among the most complex and expensive decisions they are expected to make.

There are three ways to mitigate the risks inherent in these complex decisions: thoroughly understand the problem to be solved and its context, identify and test possible solutions to the problem, evaluate the results of those tests against your service and performance goals. This handbook is designed to help any government manager follow a well-tested methodology for evaluating IT innovations before deciding (with greater confidence) to make a significant investment.

### Online Resources (1)



### Insider's Guide to Using Information in Government

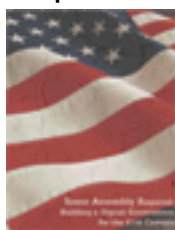
Wed, 01 Nov 2000

Every day, the people inside government use information to develop policies, make decisions, evaluate programs, and deliver services. This Web resource draws from real agency experiences to provide a practical resource for government professionals who use information to do their jobs.

Every day, the people inside government use information to develop policies, make decisions, evaluate programs, and deliver services. The Insider's Guide to Using Information in Government draws from real agency experiences to provide a practical resource for government professionals. It covers six related topics (strategy, policy, data, costs, skills, and technology) and illustrates them with stories of state and local agency projects ranging in focus from internal knowledge sharing to statewide program evaluation.

[Link to Insider's Guide](#)

### Reports and Working Papers (1)



#### Some Assembly Required: Building a Digital Government for the 21st Century

Mon, 01 Mar 1999

Information technology plays a crucial role in the public sector, and has the potential to transform the way government works. This report provides a set of recommendations for the National Science Foundation to design its Digital Government Research Program to help support that transformation.

Information technology has been a vital component of government operations for decades. It plays a crucial role in public sector administration, decision-making, and service delivery in the next millennium. The technology tools we have today, such as digital communications and advanced networking, are already transforming some areas of government. In an effort to expand this trend of moving government toward the promise of transformed public services, the National Science Foundation (NSF) established the Digital Government Program. The program fosters connections between government information service providers and research communities, seeks innovative research to improve agency, interagency, and intergovernmental operations, and advocates enhanced interactions between citizens and government.

As a grantee of the program, CTG held a multidisciplinary workshop in October 1998 to elicit a number of pertinent recommendations for the Digital Government Program. This report is based on that workshop and outlines steps NSF can take to help develop a digital government for the next millennium.

### Public Events

**(NPACI) All-Hands Meeting** -- An All-Hands meeting of the members of the NPACI partnership was held January 27-29, 1999. CTG made a presentation on EOT in government to FedCon, and hosted a panel at the NPACI meeting on "federal agency needs for high-end technologies."

**Education, Outreach, and Training: The National Grand Challenge** -- CTG participated in a panel at Alliance '98, the meeting of all partners of the National Computational Science Alliance which identified EOT related issues and activities, in context of the PACI mission. CTG highlighted issues related to public policy makers, program managers, and government technologists in relation to ACI technologies.

**Alliance '98** -- An overall presentation of the EOT-PACI work with government was given at the 1998 Triple Helix Conference.

## Press Releases & News Stories

### Press Releases

CTG a Partner in the National Computational Science Alliance

Mon, 01 Dec 1997

## Prototype

### Gateways Workbench for Designing Electronic Records Access Programs

A Web-based resource that is designed to aid in the development of electronic records access programs by providing teaching concepts, examples, and access to program design tools. The workbench is built on the completed work from Center for Technology in Government's research funded work from the National Historic Publications and Records Commission.

The prototype can be accessed at: <http://www.ctg.albany.edu/publications/guides/gateways>

## Partners

### Academic Partners

- National Center for Supercomputing Applications (NCSA) at the University of Illinois at Urbana-Champaign
- San Diego Supercomputing Center (SDSC) at the University of California, San Diego

### Center for Technology in Government

- Peter Bloniarz, Co-Principal Investigator
- Jim Costello, Web Applications Developer
- Sharon Dawes, Principal Investigator
- Jiaoheng Meng, Computer Science
- Shalini Paliath, Computer Science
- Derek Werthmuller, Technology Services Director

### Participants

- Institute Of Government And Public Affairs (IGPA). As an EOT partner, IGPA works with Illinois state and local governments to use technology to support training, and community-building among elected officials, and government practitioners.

## Funding Sources

This project is funded in part through a grant from the National Science Foundation.

## Original Scope of Work

CTG is the lead government partner in the National Science Foundation's effort to build a National Technology Infrastructure for the twenty-first century. Integrating computational, visualization, and information resources, the infrastructure will help the United States to stay on the leading edge of technology.

As the lead partner of the government portion of the Education, Outreach and Training (EOT) Team for the

Partnership for Advanced Computational Infrastructure (PACI), CTG helps identify, develop, and disseminate innovative applications of technologies to the practical problems of federal, state, and local governments.

PACI is a partnership among computational scientists, computer scientists, and professionals in education, outreach, and training at more than fifty U.S. universities and research institutions working to prototype the computational and information infrastructure of the next century.

This NSF initiative consists of two broad partnerships of research institutions across the country: The National Computational Science Alliance (NCSA) and the National Partnership for Advanced Computational Infrastructure (NPACI). NCSA is headed by the National Center for Supercomputing Applications at the University of Illinois at Urbana-Champaign. NPACI is headed by the San Diego State University at the University of California at San Diego.

As the lead government partner in the initiative's Education, Outreach and Training team, CTG works with scientists from both of these partnerships to build stronger collaborations between researchers and government. These linkages are expected to result in research products that address practical needs of government.

CTG's mission is to work with other government partners to help identify practical problems faced by state and local governments and apply promising advanced computational infrastructure (ACI) technologies to help solve the practical problems they face. In addressing the management, policy, and technical factors that affect success, CTG will use its proven award-winning methodology that both encourages and reduces the risks of technology-supported innovation to help PACI transform good ideas into working solutions for government.

This partnership is expected to have a number of benefits for all participants. Through the work of EOT-PACI, development teams should be able to build more pragmatic tools of direct benefit to not only government, but also to business, industry, research, and education.

The project will define and disseminate general models and guidelines for effective, practical uses of ACI technologies. It will support the use of ACI technologies to help solve pressing societal problems faced by government agencies and policy makers.

## Related Web Sites

What is Supercomputing?

<http://www.sdsc.edu/discovery/lo/sc.htm>

A user friendly discussion of supercomputing and some associated application areas from the National Partnership for an Advanced Computational Infrastructure (NPACI) site. A description of the National Technology grid is available at <http://access.ncsa.uiuc.edu/CoverStories/WhatisGrid/>

### The PACI Program

This National Science Foundation (NSF) program supports two programs: the Alliance, led by the National Center for Supercomputing Applications (NCSA) at the University of Illinois, Urbana-Champaign; and, the National Partnership for an Advanced Computational Infrastructure (NPACI), led by the San Diego Supercomputer Center (SDSC) at the University of California at San Diego. The Alliance and NPACI have been charged with building the **National Technology Infrastructure for the twenty-first century**. The two programs have created a combined organization for Education, Outreach and Training (EOT) to help disseminate technologies to K-12, graduate and undergraduate students, and government.

### Education, Outreach, and Training -- Partnership for Advanced Computational Infrastructure (EOT-PACI)

The two partnerships have created a combined organization for Education, Outreach and Training (EOT) to help disseminate technologies to graduate, undergraduate, K-12, and government.

## Contact Information

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