Digital Archiving

From Fragmentation to Collaboration

NASS
National Association of Secretaries of State

Developed jointly by the National Association of Secretaries of State (NASS) and the National Electronic Commerce Coordinating Council (eC3)

Presented at the 2006 eC3 Annual Conference, held December 4-6, 2006, in Sacramento, California

THIS PAGE INTENTIONALLY LEFT BLANK

Table of Contents

THIS PAGE INTENTIONALLY LEFT BLANK

Executive Summary

Managing government information in digital form is a cross-boundary challenge that requires an equally complex solution. Digitally-stored information raises technology, policy, political, and management issues that blur the lines between the responsibilities of traditional information and records custodians such as state archivists, records managers, and librarians and those of other information custodians such as chief information officers (CIOs), agency information creators, and information technology (IT) staff. Consequently, it is imperative to engage multiple stakeholders with different interpretations of the value of digital information and what is required to successfully manage it to deliver that value.

Another result of these blurred lines is a fragmentation of roles, responsibilities, and capabilities – divisions that hinder states' abilities to establish the necessary collaborative efforts. To address this fragmentation, state government agencies and organizations need to stop thinking and communicating in terms of old and traditional professions, disciplines, and organizations and to start thinking and communicating in terms of sharing information and assets and understanding commonalities rather than expressing differences.

One strategy for building these needed partnerships and overcoming existing fragmentation is the development of persuasive business cases to justify each stakeholder's "investment" in digital archiving efforts. A business case is something that appeals to the potential "investor" in a project or an initiative. A business case for digital archiving for state government must appeal to multiple investors with diverse interests. Such stakeholders most likely will include a mix of elected officials such as legislators, governors, and secretaries of state; IT professionals such as CIOs and agency IT managers and staff; a diverse group of information creators at both the local and state level agencies; and IT and digital archiving solutions vendors from the private sector.

A strong business case for digital archiving will provide information and records custodians with an important tool that helps them speak the language of those stakeholders whose partnership is critical to the initiative. The business case should include a compelling analysis of costs, benefits, and risks that address the political and economic realities each of the stakeholders face when making decisions.

The case studies included in this paper represent a distinct group of states that have learned by doing. They offer a mix of strategies that their states have employed to make the case among multiple stakeholders for investing in digital archiving efforts. This paper introduces strategies that are transferable to other states interested in pursuing digital archiving initiatives.

THIS PAGE INTENTIONALLY LEFT BLANK

Digital Archiving – A Baseline Perspective and Moving Forward

Introduction

On June 26-27 2006, the National Association of Secretaries of State (NASS) sponsored an eC3 Symposium on digital archiving that presented a unique opportunity for secretaries of state, state archivists, state librarians, and private sector IT solutions vendors to share their own perspectives on digital archiving strategies for state government digital information. Consensus was quickly reached among the participants that digital archiving "is about much more than the technology." While technology was discussed as both an enabler of and barrier to digital archiving, the Symposium presentations and discussions focused more on the policy, political, and management factors that both enable and hinder the ability of states to develop successful digital archiving initiatives.

This report presents the key themes and conclusions that emerged from the Symposium. The first section presents the results of the discussion that focused on the technology, policy, political, and management factors participants described as contributing to the fragmentation of roles and responsibilities for digital archiving across key stakeholders in the states. As emphasized by a number of Symposium participants, these factors also provide strong evidence of the cross-boundary nature of digital archiving efforts and the need for partnership building strategies.[1] This section is followed by a discussion of the mix of such strategies participants have employed in their states to make the case among multiple stakeholders for investing in digital archiving efforts.

The appendix of the report includes a summary of the four state level cases that were presented during the Symposium, as well as information on the Symposium participants and sponsors, and a list of references.

Digital Archiving in Context

Information and records custodians such as state archives, records management agencies, and libraries have traditionally provided long-term public access to significant government information in paper and other traditional formats. More and more, however, this information is being created in digital form. Much of it has short-term value, but a considerable fraction must remain available for many years, in some cases, permanently. Recent reports from the Library of Congress and the Center for Technology in Government indicate that all signs point to continued growth in the volume and complexity of this information and that most libraries and archives are hampered in their efforts to respond to this growth by a lack of technical and organizational capabilities.[2] Capabilities that are missing include adequate technology infrastructure, comprehensive program strategies, and personnel and funding resources. Faced with these challenges, traditional information and records custodians across the country are seeking new strategies and models to support their efforts to ensure long-term access to information. However, digital archiving is not a challenge that these agencies have to face alone.

> "It's about the people you can enlist to help your cause and it's about culture. How easy or difficult is the cultural environment you have to work in to get a program going. Also, how do you manage that cultural change to get where you need to go and who are other people that you can recruit to manage that cultural change. If you can get to the point where you can actually do something, there are plenty of technology choices out there."
> **Symposium Participant**

Digital archiving, like many other policy issues in government today, is an example of a cross-boundary initiative. Similar to public safety in terms of the integration of criminal justice information and public health in terms of electronic disease surveillance and electronic health records, digital archiving of government information has no single agency or organization with the complete authority or capability to manage it on its own. Across local, state, and federal governments and even the private

sector, executives and managers refer to “enterprise wide,” “statewide,” or even “shared service” strategies to address these cross-boundary issues.[3] Symposium participants concluded that managing government information in digital form presents the same coordination challenges.

Working with information in digital form raises a number of key issues that increase its cross-boundary nature. For example, several of the state archivists and librarians at the Symposium described how the technical issues surrounding digital information obscure the lines between what traditionally are considered to be a record and a publication and therefore blur the responsibilities of traditional information and records custodians in terms of managing these resources. Other Symposium participants added that technology as well as policy and political issues make it unclear what the differences are between the responsibilities of traditional information and records custodians and chief information officers (CIOs) and agency information creators and information technology (IT) staff. One obvious implication is that there are multiple stakeholders with different interpretations of the value of digital information and what is involved in successfully managing it so that it continues to deliver these different values as required. In addition, the combination of technology, policy, political, and management issues surrounding digital information has resulted in a fragmentation of roles and responsibilities within state governments for managing digital information.

For an issue that requires a cross-boundary response, the various interpretations of the value of digital information and the fragmentation of roles and responsibilities encumber states’ abilities to set up the necessary collaborative efforts. Symposium participants agreed that to address fragmentation, state government agencies and organizations need to reorient their strategies toward sharing information and assets and understanding commonalities rather than expressing differences. Many of the participants emphasized that an important first step to doing this requires a better understanding of the existing technology, policy, political, and management contexts that make cross-boundary partnerships both important and challenging.

Technology Context

Technology has had a profound impact on the creation, access, storage, and preservation of government digital information. According to one Library of Congress report, “the record of government information is jeopardized by the transformation that digital technology is forging. This new technology has spawned a tremendous amount of information that is extremely fragile, inherently impermanent, and difficult to assess for long-term value.”[4]

Also, technology has expanded the definition of records and publications. The proliferation of government Web sites, dynamic databases, and digital transactions between government and citizens have complicated the roles and responsibilities of traditional information and records custodians and each of their individual “lanes in the road” are no longer as clear. In addition, as the debate over what constitutes a record and what constitutes a publication continues, the amount and different types of government digital information continues to grow with very few states having a good understanding of the scope of the digital information that exists in their state; with even fewer states having the ability to assess and prioritize “at-risk” government information.[5]

Beyond the roles and responsibilities among the traditional information and records custodians, technology has also brought CIOs and agency information creators and IT staff into the digital archiving debate. As one Symposium participant stated, “There is an interesting tension between the idea of permanence and transitive or changing technology.” This tension has contributed to the different and sometimes conflicting value perspectives of this larger group of information and records custodians with regard to the value of digital information.

Policy Context

Within the policy context, several Symposium participants described how state level authority for the archiving of government digital information in the form of legislative mandates, standards setting, and even issuing guidance or providing services to agencies is dispersed across state archives, records

management agencies, and libraries, CIOs, agencies, and branches of government within the majority of states. This has contributed to increasing fragmentation of responsibilities for managing state government digital information.

Findings from a recent survey involving state archivists, records managers, and librarians from all 50 states and several territories indicated that authority for setting standards related to the creation and maintenance of digital information resides primarily outside of these traditional information and records custodians.[6] Information technology organizations, in particular, stand out across all three branches of government as holding a significant role in the standards-setting process and in providing services related to the management of digital information. The units identified as consistently playing a central role include the office of the state CIO or its equivalent and IT organizations in the legislative and judicial branches.

In addition, the survey results indicated that traditional information and records custodians have deeper involvement in setting standards and services for executive branch agencies than for the judicial and legislative branches. Survey findings consistently showed that even within the areas of preservation generally considered to be within the realm of traditional information and records custodians, legislative and judicial agencies are operating to a great degree independently.[7]

> "HIPAA is very concerned with privacy because it's focused on medical records. But it's also very concerned with employing standards and creating standards for the creation of records. It also has by implication started a tremendous amount of education in the states within state agencies on how to live with this act and, by implication, how to work in a cross-boundary environment." **Symposium Participant**

While state-level policies contribute to a fragmentation of roles and responsibilities for managing digital information, there appears to be a trend in federal laws and other national policies that is contributing to what one Symposium participant described as, "A national cyber infrastructure to support cross-boundary information integration." Policies such as the Uniform Electronic Transactions Act of 1999 (UETA), the Health Insurance Portability and Accountability Act of 1996 (HIPAA), and the E-Government Act of 2002 have increased the number of stakeholders such as CIOs and even private sector companies that are involved in the management of information to include archiving and preservation.[8] However, these policies do represent a national concern over the way that information, and digital information in particular, is treated. In addition, these policies are influencing a convergence of perspectives across traditional government boundaries focused on the concept of treating digital information as an "asset" or "resource" with value to both government and citizens.

> "I can't emphasize enough the effort this takes because the stakeholder groups don't necessarily know this stuff. You've got to go out there and do some education. The Secretary of State and I got on the agenda of every association that was meeting: the bar association, the court clerks, the county auditors. We had a presentation that we gave on why the digital archive was so important. After about a year and a half, enough groups were nodding their heads and saying this needs to be done and how can we help you get this thing passed." **Assistant Secretary of State, State of Washington**

Political Context

Participants cited the ability to engage with the secretaries of state and learn about the political issues influencing their perspectives on digital archiving as one of the most valuable aspects of the Symposium. Of note, according to NASS, approximately 16 secretaries of state have jurisdiction over state archives while approximately six direct state libraries.[9] Many of the Symposium participants agreed that it is very difficult to obtain executive support and sponsorship for digital archiving efforts. While two of the case studies discussed included strong executive support as a critical success factor for their digital archiving initiatives, state representatives from both cases readily admitted that leveraging that support for funding and policy making still required a lot of planning and engagement with key stakeholders.

At the government executive level, digital archiving is a challenging issue. According to one Symposium participant, traditional information and records custodians must understand that, from a political context, "permanence" and "long-term preservation" are difficult issues to champion when many in government are focused more on the next budget cycle. But the cross-boundary nature of digital archiving also results in benefits that are dispersed across stakeholders. These benefits are often less tangible than popular returns on investment (ROI) such as cost savings. For digital archiving, the ROI tends to be difficult to prove, yet the risks to a government executive are very clear. One secretary of state noted, "Why should I take a risk for your idea to benefit somebody else?"

Two of the case studies involved digital archiving efforts funded by the state in the form of recording fees paid by citizens for filing and requesting public records such as marriage and birth certificates and titles of ownership for property. While these funding models have proven to be tremendously successful for these states, the secretaries of state and other participants commented that in many other states such fees are perceived as new taxes and are not viable options given current political and economic environments.

The secretaries of state in attendance agreed that they know digital archiving is an important issue that has public value. However, in order to make it one of their priorities, they need help from information and records custodians to build a compelling business case that can be used to convince other political leaders and constituents to support such initiatives.

> "Yes, there are those things that we will need to preserve into perpetuity but let's manage our records and manage them efficiently and we'll have a better bottom line for our government."
> **Symposium Participant**

Symposium participants emphasized the idea that often the fragmentation of roles and responsibilities has to do with the institutional structure of a specific government. According to a Symposium participant who cautioned against digital archiving strategies that focused too much on attempting to address fragmentation by rewriting state laws and policies to implement an "enterprise solution," there is a fundamental philosophical reason why some governments work the way they do. For example, "The West was founded on the basis of highly decentralized government because people didn't trust government; they didn't want the power all in one place. As a consequence, our state government has some 200 separate IT shops because it has 200 separate agencies."

Management Context

Symposium participants agreed that the combination of the technology, policy, and political contexts described above has a significant impact on the management context when it comes to digital archiving efforts. The fragmentation of roles and responsibilities as well as the different and sometimes conflicting perspectives on the value of digital information, have had the following effects on the management of digital information in the states:

- Important decisions about the management of digital information are being made at a statewide level without involving the traditional information and records custodians. In many cases, decisions are being made by CIOs, agency information creators and IT staff, and even vendors from the private sector involved in developing national and statewide IT policies and standards.
- Government agencies are deciding that they need to maintain digital information in perpetuity. These agencies and their IT staff are questioning the need to send these records to the state archives and libraries due to their own perceived "archiving" capabilities.
- While the awareness of the need for better management of digital information to ensure long-term preservation and access has been raised among traditional information and records custodians, a strong enough business case has not been made outside of this community to secure the needed funding and other support.
- Securing state funding (general funds) for digital archiving efforts is very difficult given limited resources and multiple priorities within the states. Further, obtaining and utilizing increased recording fees to fund digital archiving may be very difficult especially in those states strongly opposed to "new taxes."

Opportunities and Strategies

The fragmentation of roles and responsibilities related to digital archiving provides clear evidence of the cross-boundary nature of this issue and the need for partnership and collaboration among the disparate group of key stakeholders. The fragmentation is clearly a barrier to the efforts of traditional information and records custodians to develop digital archiving capabilities on their own. However, Symposium participants concluded, this fragmentation across state CIOs, agency information creators and IT staff, branches of government, and even the private sector provides a very clear list of necessary partners or stakeholders for collaborative and effective cross-boundary solutions.

Two key approaches for building these partnerships emerged from the Symposium:

1. Understanding and communicating the value of digital information to multiple stakeholders
2. Cross-boundary partnership building through good project management

> "A business case should include a compelling analysis of costs, benefits, and risks in the language that each of the stakeholders understands and that speak to the political and economic realities they face when having to make decisions." **Symposium Participant**

A strategy for building this shared understanding of the value of government digital information among key stakeholders includes a persuasive business case on why each of the stakeholders should participate. A strong business case for digital archiving is built on good project management principles. Good project management principles and strategies will provide traditional information and records custodians with important tools to build a comprehensive business case that appeals to multiple investors with diverse interests. Such stakeholders most likely include a mix of elected officials such as legislators, governors, and secretaries of state; IT professionals such as CIOs and agency IT managers and staff; a diverse group of information creators at both the local and state level agencies; and IT and digital archiving solutions vendors.

Understanding and communicating the value of digital information to multiple stakeholders

To address the current fragmentation of roles and responsibilities in the management of government digital information, traditional information and records custodians and other key stakeholders need to reorient their strategies toward sharing information and assets and understanding commonalities rather than expressing differences. The traditional information and records custodians can begin understanding commonalities immediately by moving beyond debates over terminology and starting to treat digital information as a "public" asset with multiple values to both government and citizens.

Minnesota Statue 138.17
Government records; administration

"Government records" means state and local records, including all cards, correspondence, discs, maps, memoranda, microfilms, papers, photographs, recordings, reports, tapes, writings, optical disks, and other data, information, or documentary material, regardless of physical form or characteristics, storage media or conditions of use, made or received by an officer or agency of the state and an officer or agency of a county, city, town, school district, municipal subdivision or corporation or other public authority or political entity within the state pursuant to state law or in connection with the transaction of public business by an officer or agency.

A shared understanding of government digital information as a public asset

Existing policies and the definitions of government records and publications they put forward, according to participants, fail to provide a foundation from which multiple stakeholders can begin to discuss their interpretations of the value of information. For example, one participant discussed how the Minnesota Statute on Government records administration (M.S. 138.17) includes a very lengthy definition of government records that, "while

certainly comprehensive, does little to support the shared understanding of the value of digital information across multiple stakeholders."[10] While the law tries to be all-inclusive, it encourages exceptions. According to the same Symposium participant, "This kind of definition is one of the most fundamental barriers to doing anything with records and especially digital records. People focus on that and never get around to thinking about the value of information; they get obsessed with the terminology."

In contrast, the Uniform Electronic Transactions Act (UETA), a national standard, provides a more streamlined definition which participants agreed could serve as a more effective foundation from which multiple stakeholders can begin to build a shared understanding of the value of such information.[11] According to one participant, "With this definition you have a distinct disinterest or lack of concern with the professional and administrative boundaries that the Minnesota definition represents. The UETA definition assumes there is a certain simplicity, standardization, and convergence of activities and technologies making for a sort of common understanding rather than a bureaucratic arrangement."

Uniform Electronic Transactions Act

"Electronic record" means a record created, generated, sent, communicated, received, or stored by electronic means.

The multiple values of state government digital information

However, even for those that can reach agreement on digital information as a public asset, disagreement exists over its value. According to one participant, "What I see in my state quite frequently when we're asking people to make an investment in digital archiving is that they say their goal is to lower costs and to create efficiencies and digital archiving not only increases their costs but it delivers a value to somebody else." As one can imagine, asking an agency to make an investment and spend money on something that will not save them money and, moreover, will end up benefiting someone else, is not a very compelling argument for that agency to get on board.

With this tension between traditional return on investment analysis focused on cost savings and the more dispersed and less financially focused benefits of digital archiving, there are strategies that states have employed successfully to make a compelling case about digital archiving to multiple key stakeholders.

The Symposium participants spent a lot of time discussing compelling public value arguments for digital archiving. A key characteristic of each of these public value arguments was that they started with basic archival principles and the constitutional mandate for preserving the public's records and then tailored these elements to the interests of each of the stakeholders.

The public value arguments included:

- The value of archiving digital information to help improve public trust in government.
- The value of archiving digital information for business continuity and disaster recovery planning.
- The value of archiving digital information for e-government and e-commerce transactions.
- The value of archiving digital information for cost savings at the local government level.

One example of successfully making a compelling public value argument came from the Washington State Digital Archives. As shown in Table 1 below, the project team took basic archival principles and the secretary of state's constitutional mandate to preserve the public's records, and developed a public value framework that addressed the interests of multiple stakeholders in the state to include local government recording authorities, state agencies, and even government executives such as legislators and attorneys general. According to Washington State Digital Archives representatives, two of the basic archival principles included in their public value framework were chain of custody and authenticity of the public records.

Table 1. Benefits of the Digital Archives to Both Citizens and State and Local Government from the Washington State Digital Archives Feasibility Study and Investment Plan[12]			
Cost Savings	**Cost Avoidance**	**Cost Recovery**	**Intangible Benefits**
	Legal fines and sanctions	Copies of certified records	Improved public access
	Growth in storage facilities for paper records	State recoveries from lawsuits and settlements (e.g. Tobacco settlement)	Legal compliance
			Public trust in government
			Preservation of state history
			Staff efficiency
			Improved record security

The table includes no digital archiving benefits in terms of cost savings. However, the project team included very clear and quantifiable benefits that describe the multidimensional public value of the digital archives to include cost avoidance and cost recovery. Symposium participants representing the Washington State Digital Archives were quick to point out that they did not come up with these benefits on their own. Each one was crafted based on significant engagement with stakeholders throughout the state. According to one representative from the Washington State Digital Archives, "What we did was look at the business use and the legal requirements of the digital information and made the agencies understand that what we're trying to do is maintain the legal compliance of that record and to ensure that it lives its retention schedule. We also emphasized to both local and state agencies that they could maintain copies of their own records for their own business needs. Once we have that record and once that business need for them is fulfilled, they don't have to be concerned with how long that record needs to be kept."

Georgia has taken a slightly different approach to leveraging archival principles and its legal mandate over the preservation of public records by working with stakeholders to develop a shared understanding of the value of digital information. As a member of the state governance council that sets all the IT policy for the state, the Georgia Archives, representing the Georgia Secretary of State, was involved in business continuity and disaster recovery planning for the state.[13] As a member of this council, the Georgia Archives has been able to make the case that making good decisions about what information to digitize and what digital information needs to be preserved will help business continuity and disaster recovery planning.

In addition to the basic archival principles of chain of custody and authenticity, the Archives also emphasized security and the expectation that certain digital information must remain accessible to those stakeholders who want to use it. According to the representative from the Georgia Archives, "One thing that I discovered by participating in this council and discussing disaster preparedness with other state agencies was that when IT folks begin talking about digital records in business continuity, they say 'let's just scan everything, let's make everything electronic, back it up and take it with us when we flee. However, then they realized, 'maybe we should just do the critical stuff. So, what's the critical stuff?' And then that's where we [the Georgia Archives] come in and say 'we can help you with that, we've been doing it for years.'"

Beyond business continuity and disaster preparedness, another powerful case for treating digital information as a public asset focused on national and state level e-government and e-commerce initiatives. These initiatives operate with the underlying assumption that information is an asset which derives its value from use and reuse. Digital information in the form of government Web sites, dynamic

databases, and transactions between government and citizens is not something you use once and throw away or use once and just store, but something that you keep vital, dynamic, and useable for a variety of different purposes.

Other strategies that emerged from the Symposium addressed the tension between the concepts of permanence and shorter term business or political needs. For example, traditional information and records custodians could approach digital archiving from the perspective of helping agencies maintain records for a five or 10 year horizon with the assumption that such an approach will lead to the permanent archiving of those records. Another similar strategy involved approaching agencies with the offer of assistance to help them set standards and put processes in place to allow them to maintain records for the next budget cycle. Once again, the standards and processes put in place are more likely to result in digital records that will be transferable to long-term preservation.

In response to the common concern from state agencies about investing in digital archiving projects that cost rather than save them money, two participants offered two very different yet equally profound responses. One was, "Why would you squander an investment of millions of dollars in the creation of digital information without protecting it." The representative from Louisiana, reflecting on her own experience with the aftermath of Hurricanes Katrina and Rita and the significant loss of important government, business, and cultural records, stated, "How do you explain to people that there is a huge void in their society?" Both of these have little to do with short-term cost savings but everything to do with longer-term cost avoidance by treating digital information as a public asset of value.

"PARIS Grants Drive Down Property Taxes"

The New Jersey Division of Archives and Records Management's PARIS Grants Program, now in its second year of operation, achieves real property tax relief for New Jersey's citizens in four important ways:

- ✓ **Replacement revenue**
- ✓ **Productivity enhancements**
- ✓ **Public service improvements**
- ✓ **Cost reductions**

Finally, for those states where some of the key stakeholders require that cost savings are included in the digital archiving public value argument, New Jersey's Division of Archives and Records Management (NJDARM) provides one strategy. Through the state's Public Archives and Records Infrastructure Support (PARIS) Grants Program, NJDARM determined a potential average annual cost savings of $20,000 per local government unit in New Jersey. Based on this amount, NJDARM determined further that if every county, municipality, school district and major local government unit in New Jersey achieved this savings, it would result in a statewide annual savings exceeding a total of $23 million.[14]

Partnership building through good project management

"We haven't done a very good business case of potential values. We're not engaging potential stakeholders to find out what their expectations are. We need to understand the available opportunities and known risks that exist in our own political and economic culture in order to complete our business case."
Symposium Participant

It goes without saying that successful projects are built on good project management. Good project management is necessary for implementing an approved and funded investment. In addition, it is a key ingredient in developing a project and securing support to include funding and other non-financial stakeholder participation and partnership.[15] Producing a compelling business case is one of the first strategies for any planned investment. A business case represents a formalized and systematic process of describing a problem that needs to be solved followed by a plan for what needs to be done and who should be involved to solve that problem. It includes a clear description of the current environment and the desired future state along with a detailed plan on how to get from here to there. Table 2 below provides one example of the essential elements of a business case that represents many of the key points discussed during the Symposium.

Table 2. Essential Elements of a Business Case[16]
1. A brief compelling, service oriented problem statement
2. A mission statement or vision of the future that addresses the problem
3. A description of the specific objectives to be achieved
4. A description and rationale for your preferred approach
5. A statement of the benefits that addresses the concerns of all relevant stakeholders
6. Measures for gauging improved performance or progress toward each objective
7. A statement of the likely risks of your initiative and how they will be addressed
8. A basic plan of work with timeline and key milestones
9. A project management plan and names and roles of key managers
10. Alternatives considered and how they would or would not work
11. Cost estimates and potential sources of funding
12. Opposing arguments and your responses to them

The more complex the environment and the larger the amount of resources needed to move from the current to desired future state, the more important a business case becomes. As mentioned earlier in this report and emphasized repeatedly during the Symposium, digital archiving projects are complex and resource intensive due in large part to their cross-boundary nature and the technology, policy, political, and management challenges that states face in developing a cross-boundary solution.

Fortunately, more and more states are realizing that many government IT investments today, to include digital archiving projects, are cross-boundary in nature and therefore complex and resource intensive well beyond the technology. There are a number of states, to include each of the four that were highlighted during the Symposium that have developed and implemented statewide policies and guidance to help agencies build compelling business cases and strong project management skills and processes to help increase the success of cross-boundary initiatives. Moreover, these policies and guidance have had direct impacts on digital archiving initiatives. Of note, the project management policies and guidance for three of the four cases included in the Symposium were developed and implemented by the statewide IT governing bodies in each of the states. For other traditional information and records custodians interested in finding similar strategies in their states, their own statewide IT governing bodies would be a logical place to start.

In Kansas and in accordance with Information Technology Executive Council (ITEC) IT Policy 2400R1, all projects with estimated costs of $250,000 or more require the agency to develop an Information Technology Project Plan (ITPP). This plan must be approved by the Chief Information Technology Officer (CITO) for the sponsoring agency's branch of state government. [17] In addition, the state IT governing body not only provides detailed guidance on how to build a business case and develop a feasibility study report, but also provides project management training to all state employees.[18]

Similar to Kansas, both Georgia and the State of Washington require comprehensive project management standards for state projects involving a technology investment. These policies were developed and administered by both states' statewide IT governing bodies. In Georgia, that body is the Georgia Technology Authority and in the Washington that body is the Department of Information Services.[19] Of note, the Washington State Digital Archives worked closely with the Department of Information Services and embraced the Department's project management standards and guidelines. The result of this collaboration included a very compelling business case detailed in the WSDA's Feasibility Study and Investment Plan.[20]

> "The Georgia Technology Authority requires a thorough business case be developed for each project. This business case should demonstrate that the agency clearly understands the business needs to be met by the project."
> **GTA Technology Project Management Standard**

In New Jersey, the Public Archives and Records Infrastructure Support (PARIS) Grants Program requires comprehensive project management from each of the local government records projects that it funds. In addition, the PARIS Grants Program Evaluation Criteria in Table 3 below include a strong emphasis on cross-boundary value based on the State Records Committee's project priorities of improved, public access, disaster planning and recovery, and shared services.

Table 3. New Jersey PARIS Grants Program Evaluation Criteria[21]
1. Relevance of project to agency's archives and records management strategic plan and demonstration of project's potential for enhancing archives and records management function
2. Quality of formulation and explanation of the outcomes of the proposed project
3. Commitment of applicant organization to maintaining and expanding archives and records management infrastructure initiated with grant funding
4. Quality and completeness of plan of work, including timetable and budget
5. Consistent with eligible project priorities established by State Records Committee for the grant year: a. improved access to public records; b. disaster planning and recovery; and c. shared services
6. Demonstrated involvement in all major functions in the development of the proposed projects and applications
7. Completeness and overall quality of application including incorporation of staff recommendations regarding the draft

The approaches discussed above provide traditional information and records custodians with a mix of proven strategies to build partnerships for digital archiving efforts. These strategies focus on persuasive public value arguments and compelling business cases built on a foundation of good project management.

Conclusion

The insights and ideas that emerged from the Digital Archiving Symposium provide traditional information and records custodians with a mix of proven strategies to help overcome existing fragmentation of roles and responsibilities in managing state government digital information. These strategies focus on persuasive public value arguments and compelling business cases built on a foundation of strong project management that traditional information and records custodians can use to develop cross-boundary partnerships for collaborative digital archiving efforts.

Understanding the technology, policy, political, and management context within each potential partner is key to the success of any partnership effort. This applies within the digital archiving arena as well. As discussed in this report, the key stakeholders who should play critical roles in current digital archiving efforts include:

- elected officials such as legislators, governors, and secretaries of state;
- IT professionals such as chief information officers (CIOs) and agency IT managers and staff;
- a diverse group of information creators at both the local and state level agencies; and
- IT and digital archiving solutions vendors from the private sector.

The business case that must be made to gain the support of these "potential investors" includes a compelling analysis of costs, benefits, and risks in the language that each of the stakeholders understands and that speak to the technology, policy, political, and management realities that they face when having to make decisions. Building these business cases is no easy task. Fortunately, there are a

number of states that have been very successful in doing so and whose strategies are in part, if not fully, transferable to other states interested in pursuing digital archiving initiatives.

Appendix A. The Cases

Making the Case for a Digital Archives in Washington[22]

The growth of electronic records in government agencies in the 1990's presented a challenge to the Washington State Archives' ability to fulfill its mission, since it lacked an effective program and technology to deal with records in these new formats. The Washington State Digital Archives (WSDA), a program within the Office of Secretary of State, is the response to that challenge. It was initiated by the Office of the Secretary of State, with initial planning begun by the then State Archivist in March of 2000. The initiative was taken up in 2001 as a priority by the newly elected Secretary of State Sam Reed, and included in the Secretary of State's 2001-2007 Strategic Plan. The project was subsequently supported by the state legislature and included in the State of Washington's 2001-2003 Capital Budget. The WSDA is funded by a $1 surcharge to county level record fees for public records.

Beginning in mid-2001, the WSDA team began exploring a wide range of technologies and techniques for collection, access, and preservation. The results led to the custom development of a Web interface and database design that blended the latest technologies with traditional archival theory to create a first of its kind digital records repository for state government. The goal of the program was to make the historical electronic records of Washington's state and local governments easily accessible, from anywhere, at anytime.

The initial vision and value proposition were carried through a complex political and technical process to a functioning digital archiving program and facility delivering the promised public value. The WSDA project team began with a clear vision of the expected value of the Digital Archives to both the government and citizens. In addition, by leveraging a statewide project management structure for government IT investments, the team successfully identified the benefits that it needed to communicate to the state and local government agencies that were keepers of public recorders in order to mobilize their support and participation. The WSDA project demonstrates a strong connection between the initial high level public value proposition that motivated the project and its realization in the performance of WSDA itself.

Leveraging the Archives Mandate into Partnerships in Georgia[23]

The Georgia Archives has relied on collaboration and partnership building with vendors in the private sector, local government, state agencies, and in particular, the statewide IT governing body, the Georgia Technology Authority as a strategy to leverage its legal mandate over the management of government digital information. The "business case" the Archives developed was built on its legal mandate, which in fact includes authority over the creation of records but included stakeholder interests such as improved delivery of government services to citizens and overall government efficiency.

The Georgia Archives also used several federal grants to help with its partnership building with other state agencies. For example, the Archives worked with the GTA on the issue of confidentiality and records, which helped foster an understanding that a "long-term" need is more than five years. In addition, a National Historical Publications and Records Commission (NHPRC) grant enabled the Archives to bring together a lot of people to preach digital preservation and to help develop a number of strong relationships that continue today. Currently, the Archives is working together with the GTA with funding from NHPRC on a digital archiving project focused on executive clemency records. This project is a cross-boundary initiative involving not only the Georgia Archives and Technology Authority, but also the Board of Pardons and Paroles, the Department of Corrections, and the Governor's office. The project involves developing a system of creating and managing executive clemency records electronically and sharing them with everybody who needs to see them. The records will be stored in the digital archives

and over a period of time, the records that don't need to be retained, will be disposed on a regular schedule leaving behind the permanent record, which is stored in the digital archives permanently.

Institutionalized Collaboration brings IT and Archives together in Kansas[24]

The Kansas IT governance structure is very formal and has been formalized in statute. Due to a number of IT project failures in the state, in 1998, the state legislature passed a bill called Senate Bill 5. Senate Bill 5 established a structure to manage statewide government IT investments. The law established legislative oversight of IT projects, required standardized project planning processes, and put in place quarterly and annual project reporting and three year IT strategic plans.

The IT governing structure includes various committees and subcommittees to include an electronic records subcommittee (ERC). The ERC is chaired by a representative from the state archivist at the state historical society. The subcommittee membership includes the state archivist and some of the archives staff, the state librarian, and also a number of IT people from state executive agencies, the legislature, and the judicial branch.

One of the ERC tasks is the KSPACe repository. The repository is targeting any record from state agencies. The project started with collecting the records that agencies are required by statute to submit to the legislature or the governor. Also, there is an electronic record keeping planning process. For this process, the ERC has developed a set of guidelines for agencies to follow. A big push for the ERC to develop both KSPACe and the electronic record keeping process came in 2003 when the legislature passed a bill eliminating the requirement for agencies to print reports. Instead, agencies were now permitted to distribute reports electronically. As a result, agencies were posting reports on their Web site. However, six months later the reports were gone.

The Strategic Funding of Local Government Archiving Capabilities in New Jersey[25]

The mission of the Public Archives and Records Infrastructure Support (PARIS) Grants Program is to meet the strategic archives and records management, storage, and preservation needs of New Jersey's county and municipal governments. A competitive program, grants are awarded by the State Records Committee, which comprises the state attorney general, treasurer, and auditor, director of local government services in the Department of Community Affairs, and the director of the New Jersey Division of Archives and Records Management.

The program is funded by a stable revenue source. Two sections in an omnibus fee bill in 2003 created the grant program and funded it through a dedicated fee of five dollars per page for filing deeds, mortgages, and related public records with the county clerks and registers of deeds. The funding stream was instituted during a time of increasing structural deficits in the state budget, and was supported by an administration willing to charge additional fees. Prior administrations would not support any measure that could be perceived as a tax or fee increase.

The PARIS Grants Program uses the grant funding to encourage enterprisewide solutions and collaborative services to encourage local government administrators, IT, records creators, and records managers to work together on records management initiatives. An initial major success of the program has been persuading local governments to hire archives, records, and information management professionals to conduct comprehensive records systems needs assessments. Continued eligibility for PARIS funding requires local governments to have either both a completed needs assessment and strategic plan in place or to undertake them. Project proposals seeking grant support in the future must clearly demonstrate how they will successfully implement aspects of the strategic plan.

The PARIS Grants Program funds an array of successful collaborative digital recordkeeping projects including:

- The implementation of a land records e-filing portal first developed in one county and later expanded to ten additional counties – which now includes more than half of the counties in the state.
- An electronic integration of law enforcement recordkeeping and records sharing by the Essex County prosecutor, sheriff, and City of Newark police department.
- Establishing and facilitating a project managers' and CIOs' workgroup to learn about electronic document management systems (EDMS). Several counties have drawn on this experience to develop request for proposals (RFPs) for grant-funded EDMSs.

Appendix B. The Digital Archiving Symposium

On June 26 and 27, 2006, the National Electronic Commerce Coordinating Council (eC3) convened in Bellevue, Washington for a symposium on the topic of digital archiving. The meeting was hosted by the National Association of Secretaries of State (NASS), which was represented by Secretary of State Mary Kiffmeyer from Minnesota, Secretary of State Elaine Marshall from North Carolina, and Secretary of State Brad Johnson from Montana, and Assistant Secretary of State Steve Excell from Washington. NASS Executive Director Leslie Reynolds organized all travel and logistics for the Symposium with on-site support provided by the Office of the Washington Secretary of State. Theresa Pardo, from the Center for Technology in Government (CTG), University at Albany, State University of New York, designed the Symposium agenda and facilitated the discussion. Brian Burke, also from CTG, is the author of this paper.

This paper reflects the work done over the two days of the Symposium, as well as research and contributions before and after the meeting. The speakers at the presentation provided a wealth of information and NASS and eC3 are grateful for their help. They were:

- G. Brian Burke, Senior Program Associate, Center for Technology in Government
- Terri Clark, Database Manager, Kansas Legislature
- David Carmicheal, Director, Georgia Archives
- Robert Horton, State Archivist, Minnesota Historical Society
- Adam Jansen, Digital Archivist, Office of the Washington Secretary of State
- Daniel Noonan, Supervisor, Electronic Records Management, New Jersey Division of Archives and Records Management

The sponsors of the Symposium made the event possible. As always, they deserve full credit for their participation in and in support of the work of eC3. They were:

- ACS Government Solutions – Betsy Justus
- Eastman Kodak Company – Bruce Holroyd
- EMC Corporation – Jeff Spitulnik
- IBM Sales and Distribution – Rick Helfer
- Lockheed Martin – Eric Singer
- Microsoft Corporation – Stuart McKee and Andy Pittman
- Tower Software – Jan Rosi and Straughan Schofield
- Unisys – Paul Barber and Brian Ridderbush

This symposium paper was printed compliments of Unisys.

eC3 board members at the meeting were:

- PK Agarwal, California Department of Technology Services
- Hon. Brad Johnson
- Hon. Mary Kiffmeyer
- Hon. Elaine Marshall
- Amelia Winstead, National Association of Government Archives and Records and Administrators

The other participants in the Symposium were:

- Patti Borsberry, Office of the Secretary of State, Montana
- Brian Burford, New Hampshire Archives and Records Management
- Reynolds Cahoon, National Archives and Records Administration

- Cornelia Chebinou, National Association of State Auditors, Comptrollers and Treasurers
- Carrie Fager, Louisiana State Archives
- Connie Frankenfeld, Illinois State Library
- Jerry Handfield, Washington State Archives
- Jim Henderson, Maine State Archives
- Bill LeFurgy, Library of Congress
- Ray Matthews, Utah State Library Division
- Gayle Palmer, Online Computer Library Center
- Edward Papenfuse, Maryland State Archives
- Richard Pearce-Moses, Arizona State Library, Archives and Public Records
- Jan Reagan, State Library of North Carolina
- Vicki Walch, Council of State Archivists
- Nancy Zimmelman, California State Archives

Appendix C. References

[1] A 2003 eC3 symposium addressed the issue of cross-boundary integration in government. See the symposium report *XBI-Cross Boundary Integration: The Key to Successful E-Government* at http://www.ec3.org/Downloads/2003/XBI_Report.pdf.

[2] For more information on state level digital archiving issues and challenges please see:

- CTG's *Preserving State Government Digital Information: A Baseline Report* http://www.ctg.albany.edu/publications/reports/digital_preservation_baseline
- The Library of Congress's *Preservation of State Government Digital Information: Issues and Opportunities* at http://www.digitalpreservation.gov/partners/states_wkshps.pdf

[3] For more information on "enterprisewide," "statewide," and "shared service" concepts and strategies across the states visit the National Association of State Chief Information Officers (NASCIO) Web site and take a look at some of their publications on these topics at http://www.nascio.org/publications/index.cfm.

[4] *Preservation of State Government Digital Information: Issues and Opportunities,* The Library of Congress, 2002 at http://www.digitalpreservation.gov/partners/states_wkshps.pdf.

[5] According to the Library of Congress, frustrations are shared by industry and collecting institutions alike over the multiplicity of formats, rapid technological changes, and hardware and software obsolescence that plague the new information technologies. See *Preservation of State Government Digital Information: Issues and Opportunities* at http://www.digitalpreservation.gov/partners/states_wkshps.pdf.

[6] For detailed information on CTG's 2006 State Government Digital Information Preservation Survey see http://www.ctg.albany.edu/publications/reports/digital_preservation_baseline.

[7] See Section 2. Institutional Roles and Responsibilities of the *Preserving State Government Digital Information: A Baseline Report* at http://www.ctg.albany.edu/publications/reports/digital_preservation_baseline.

[8] For more information on each of these policies see:

- E Government Act of 2002 at http://frwebgate.access.gpo.gov/cgi bin/getdoc.cgi?dbname=107_cong_public_laws&docid=f:publ347.107.pdf
- Uniform Electronic Transactions Act of 1999 (UETA) at http://www.law.upenn.edu/bll/ulc/fnact99/1990s/ueta99.htm
- The Health Insurance Portability and Accountability Act of 1996 (HIPAA) at http://aspe.hhs.gov/admnsimp/pl104191.htm

[9] For more information on the roles and responsibilities of secretaries of state see the *NASS 2002 Secretaries of State Office and Duties Survey* at http://www.nass.org/sos/duties_survey/index.html.

[10] View complete text of M.S. 138.17 at http://ww2.revisor.leg.state.mn.us/stats/138/17.html.

[11] According to the Uniform Electronic Transactions, "record" means information that is inscribed on a tangible medium or that is stored in an electronic or other medium and is retrievable in perceivable form. View complete text of UETA at http://www.law.upenn.edu/bll/ulc/fnact99/1990s/ueta99.htm

[12] Copies of the WSDA Feasibility Study and Investment Plan can be viewed and downloaded at http://www.digitalarchives.wa.gov/Content.aspx?txt=background.

[13] For a more detailed discussion on the efforts of state archives regarding disaster preparedness planning see the Council of State Archivists Emergency Preparedness Initiative site at www.statearchivists.org/prepare/.

[14] According to the New Jersey Division of Archives and Record Management, by comprehensively inventorying local government records and identifying those eligible for destruction, many counties and municipalities will significantly reduce storage costs. In one county inventory, the records analyst determined that only one-tenth of a percent of a division's records warranted retention (7 of 400 total cubic feet). One municipality estimates that 50 to 60 percent of its existing records will be found eligible for destruction through its records inventory, for a projected savings of $20,000 a year in storage costs. If, through PARIS funded initiatives, every county, municipality, school district and major local government unit in New Jersey achieves an average $20,000 in annual cost savings, the statewide total will exceed $23 million. For more information visit http://www.njarchives.org/links/pdf/paris-grants-drive-down-property-taxes.pdf.

[15] For additional information on the importance of good project management especially for statewide IT investments see the NASCIO 2006 report *Looking to the Future: Challenges & Opportunities for Government IT Project Management Offices* at http://www.nascio.org/publications/documents/NASCIO-LookingToTheFuture.pdf.

[16] *Making Smart IT Choices: Understanding Value and Risk in Government IT Investments*, The Center for Technology in Government, University at Albany, State University of New York, April 2004 http://www.ctg.albany.edu/publications/guides/smartit2

[17] http://www.da.ks.gov/itec/Documents/ITECITPolicy2400R1.htm

[18] For more information see the *Feasibility Study Report Guidelines* http://www.da.ks.gov/kito/ITProposedPlans.htm and the Enterprise Project Management Office at http://www.da.ks.gov/kito/EPMO.htm.

[19] Information on the Georgia Technology Authority can be found at http://gta.georgia.gov/02/gta/home/0,2238,1070969,00.html and information on the state of Washington's Department of Information Services at http://www.dis.wa.gov/.

See the *Georgia Technology Authority Project Management Standard* at http://gta.georgia.gov/vgn/images/portal/cit_1210/3028947Technology_Project_Management_Standard_031803.pdf.

[20] Detailed Documentation describing the "business case" for the Digital Archives can be found in both the Washington State Digital Archives *Feasibility Study* and *Investment Plan* located at: http://www.digitalarchives.wa.gov/Content.aspx?txt=background. In addition, details on statewide policies and procedures for building a case for and managing large IT projects in the State of Washington can be found at the following Washington State Department of Information Services site: http://isb.wa.gov/.

[21] *Report to the State Records Committee on the PARIS Grants Program*, *Second Year Applications Review and Recommendations*, May 18, 2006 (online at http://www.njarchives.org/links/pdf/paris awards fy06.pdf).

[22] See the Washington State Digital Archives at http://www.digitalarchives.wa.gov/default.aspx.

For a more detailed discussion on the public value argument made for the Washington State Digital Archives see CTG's case study report on the project at http://www.ctg.albany.edu/publications/reports/proi_case_washington.

[23] An example of recent collaboration between the Georgia Archives and the Georgia Technology Authority is the development of a statewide policy to define the standards used when purchasing a records management application in the state of Georgia. See the following link for a draft of the standard. http://gta.georgia.gov/vgn/images/portal/cit_1210/5/16/49322902RMAStandard2005%20%20Approved%20 %20December%2013%202005.pdf

Information on the Georgia Archives can be found at http://www.sos.state.ga.us/archives/

[24] Learn more about Kansas's digital repository for government publications (KSPACe) at http://www.kspace.org/. In addition, learn more about Kansas's Electronic Records Committee at http://www.da.ks.gov/itab/erc/ and statewide IT governance structure at http://www.da.ks.gov/kito/.

[25] Learn more about New Jersey's PARIS program at http://www.njarchives.org/links/paris.html and the New Jersey Division of Archives and Records Management at http://www.njarchives.org/.

Printing Courtesy of Unisys Corporation: