



# NALIT

National Association of Legislative Information Technology

Winter 2010

National Conference of State Legislatures ♦ 7700 E. First Place ♦ Denver, CO 80230 ♦ 303-364-7700

Happy 2010! Can you believe it's been 10 years since we survived the buildup to Y2K? I remember spending my New Year's Eve in 1999 with my colleagues in the IS division, keeping our fingers crossed that all the preparations we put in place would work, "just in case." Thankfully, all our efforts paid off, and we entered 2000 with ease, even if we didn't get to have a champagne toast.

## CHAIR'S CORNER by Linda Pittsford

Not only am I amazed at how fast the years have gone by, but I also can't believe the technology that has emerged within this decade. Who would have imagined when we entered the 21st century, that we would be blogging, setting up a Facebook page, or sending a "tweet"? Certainly we have had to push our acceptance of this emerging technology as we've prepared to support it within our own legislatures. The social networking phenomenon has changed how the world communicates.

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When I assumed the chair position in Philadelphia, I talked about the importance of communication with each other throughout the year as we all continue to struggle with being asked to do more with less. Although many were not able to travel to Philly or to Austin for the PDS, we want to make sure there are opportunities to connect with one another. So whether you're following NALIT on Twitter, using the listserv for email questions, or participating in e-learning sessions, we hope you're able to gather beneficial information from your colleagues through these channels. We will continue to look for ways to expand our communication opportunities and tools throughout the coming year.

The NALIT Professional Development Seminar in Austin in September was well attended, especially considering the recent travel bans for many states. I hope that everyone who was able to attend found it as rewarding an experience as we felt in hosting it. Y'all are welcome back in Austin, any time. Thanks to the efforts of our past-chair, Gary Schaefer, we also provided, for the first time, two e-learning opportunities to our NALIT colleagues during the PDS. If you weren't able to participate live during those sessions, they can still be found on the NCSL website at <http://www.ncsl.org> on the *Meetings* tab under *Professional Development* in the *Multimedia Library*. I encourage you to browse the page while you're there, because many e-learning opportunities are on the site provided by other staff sections that you may find interesting. We received good feedback on the sessions we provided, and we hope to continue to offer these types of learning and professional development opportunities as we move forward in 2010. If you have an idea on the types of sessions that may be of interest in the future, feel free to let me know.

On a personal note, I am currently recovering from a recent health issue, and because of that, have unfortunately not been able to devote adequate time to the NALIT organization the past few months. I want to thank everyone for their support and pledge that I begin the new year with a renewed dedication to NALIT and to the legislative professionals throughout the nation who make this a great organization.

Here's wishing all of you a fulfilling and prosperous new year!

Linda Pittsford, Texas  
Chair

## My Life in the Cloud

By Jerry Gamblin, Security Specialist, Missouri House of Representatives

I can remember vividly my eighth grade basketball coach yelling at me to “Get your head out of the clouds and play defense” (although I have had to remove about 15 expletives to make his quote publication-friendly). Who could have known that 15 years later my head would finally be out of the clouds, but my data would be stuck in it.

If you are anything like me, over the last couple of years you have started to control your data but you no longer “own it.” Also, if you are anything like me, you didn’t set out to do this to yourself, it just gradually happened over the last 10 years of trying to stay up with the latest technology and toys. Your data is now on “The Cloud.”

What is the cloud? According to Wikipedia, *“It is a paradigm shift whereby details are abstracted from the users who no longer need knowledge of, expertise in, or control over the technology infrastructure “in the cloud” that supports them. It typically involves the provision of dynamically scalable and often virtualized resources as a service over the Internet.*<sup>1</sup>

In plain language it is “The Internet.”

My personal opinion is that consultants weren’t making enough money with “Web 2.0” anymore, so they needed a new buzz word to gain some traction: “The Cloud” was the winner.

It started out for me with a GMAIL account in 2004 that gradually became my main personal address and now has 4 gigs of email data that Google owns and I control. It was marketed as a “never delete anything” account—and I haven’t. During the last five years, I met my wife, got married, started a new job and had a kid. It is all archived in my delete nothing GMAIL account. There is date information, some wedding plans, a great job offer to work at the Missouri House, and baby pictures—all on some server, in some massive Google data center, somewhere in “The Cloud.”

That’s just the very tip of the proverbial iceberg. I have a Facebook account loaded with pictures from trips and Mizzou games. I have a Dropbox account where I store stuff I want to be able to grab when I don’t have access to my home network. I back up my home NAS to an IDRIVE account. I post most of my pictures to a Picasa account to share with family and friends around the world.

I could go on and on about the amount of data that has true meaning to me to which I have handed ownership to a company that I know very little about and that I just come and visit every once in awhile when it is convenient for me.

Most of my data is stored with Google, and they are the good guys—right? It is not as if Eric Schmidt, the CEO of Google, said: “If you have something that you don’t want anyone to know, maybe you shouldn’t be doing it in the first place.” Sadly, he did.<sup>2</sup>

### So how can you live in the cloud and not get wet?

- Act like everyone can see what you store on the Internet...because maybe they can.
- Change your passwords routinely.
  - When was the last time Google asked you to change your GMAIL account password? Never? Maybe it’s a good time to do that now.
- Delete Important Stuff... at least off the cloud.
  - Yeah, it sounds opposite of what everyone has ever told you, but don’t leave important information on the Internet if you can store it somewhere else.
- Keep Important Stuff on physical media.
  - It is also a good idea to keep a local copy of important pictures, documents, etc., in case the company in the “Cloud” you are dealing with shuts down without telling you or loses your data.

- Change your privacy settings:
  - Take five minutes and look at the security tab on your social networking and webmail accounts. Make sure you tell it to only make information viewable to your friends and to only use secure connections.

It is pretty basic stuff; just treat data in the cloud like you treat data that shows up in your (physical) mailbox.

If you have any questions, you can send an email to [jerry.gamblin@house.mo.gov](mailto:jerry.gamblin@house.mo.gov) or [jerry.gamblin@gmail.com](mailto:jerry.gamblin@gmail.com), or follow me on Twitter at [www.twitter.com/jgamblin](http://www.twitter.com/jgamblin).

<sup>1</sup> [http://en.wikipedia.org/wiki/Cloud\\_computing](http://en.wikipedia.org/wiki/Cloud_computing)  
<sup>2</sup> [http://www.theregister.co.uk/2009/12/07/schmidt\\_on\\_privacy/](http://www.theregister.co.uk/2009/12/07/schmidt_on_privacy/)

## Stand Up and Be Recognized!

*By Pam Greenberg, NCSL Liaison to NALIT*

Many benefits and rewards are available to NALIT members, including eligibility for two awards programs sponsored by NALIT. Each spring, NALIT committees call for nominations for the annual Legislative Staff Achievement Awards (LSAA) and the Online Democracy Award.

### Legislative Staff Achievement Award

The Legislative Staff Achievement Award recognizes excellence in supporting the work of a state legislature and strengthening the legislative institution. NALIT typically presents two awards—to individuals, teams or legislative offices. Recipients of the awards are presented with a plaque and are recognized by the NCSL Staff Chair at the NCSL Legislative Summit.

The criteria for consideration are:

- Helping to improve the effectiveness of the legislative institution;
- Supporting the legislative process and the mission of the legislature;
- Exhibiting a high degree of professionalism, competence, and integrity in serving the legislature and the public;

- Contributing to the work of the National Conference of State Legislatures;
- Contributing to the National Association of Legislative Information Technology;
- Contributing to existing knowledge/ demonstrating expertise in a particular field.

All members of NALIT are eligible for this award (and if you are an IT professional employed by a state legislature or U.S. commonwealths and territories, you are a member!). Nominations may be submitted by the nominee or others.

### Online Democracy Award

NALIT and the Legislative Information and Communications Staff Section (LINCS) are co-sponsors of the Online Democracy Award. Recipients of the award are presented with a trophy and are recognized at the NCSL Legislative Summit. Nominated websites are judged using an established ranking system based on the judging criteria, which cover specific design, content and technology features.

To be eligible for the award, a site must be an official legislative site developed and maintained by or under the authority of

- a state legislature,
- a legislative house, or
- an officially recognized legislative partisan caucus.

To be considered for the award, a legislative web site must be either self-nominated or nominated by another state. Legislative web sites in states that have won the award in either of the previous two years are not eligible for consideration.

Both awards committees usually begin asking for nominations in the spring. Watch the NALIT listserv and the NALIT home page for announcements.



## News from the Staff Chair

*By Nancy Cyr, NCSL Staff Chair, Nebraska*

While January marks the beginning of a new year and the start of legislative sessions throughout the country, it is actually the “halfway point” of my year as NCSL staff chair. It has been an honor, a privilege, and a “whole lotta fun” representing legislative staff this year.

E-learning has occupied center stage during the first six months of the NCSL year. As the technology experts, NALIT members have contributed greatly to this effort. Most staff sections made use of the e-learning grants available through NCSL, resulting in a wide variety of educational materials on the NCSL website. From continuity of government to ethics to malware prevention to 50-state research tools, the NCSL staff training toolbox is growing. As budget constraints and travel bans continue, it is important that staff sections continue their e-learning efforts. Rest assured, we will continue to count on your expertise.

What will the next six months bring? Promoting legislative service as a career is another goal for the year. A recent NCSL staff survey pointed out that many legislative staffers are closer to the end of their careers than the beginning. I remember the first NCSL meeting I attended; I was shocked to see staffers with gray hair hustling through the convention center. Truly, it was the first time I realized that working for the legislature was not just a job but a career. Today, while only my hairdresser and I know the true color of my hair, I want everyone to know that the legislature is an exciting, dynamic, and stimulating place to work, learn and grow.

Finally, I want to encourage you and other legislative staffers to continue to be involved in NCSL. NCSL provides legislative staffers the opportunity to learn, grow professionally, and lead. Involvement can take many forms. As NALIT members, you have taken that first step. Other possibilities include participating in a webinar, becoming involved in a standing committee, serving on a panel, or running for office within your staff section. Go ahead; take the plunge.

## What I Did this Summer—or— My First Five Months as Staff Vice Chair

*By Tim Rice, NCSL Staff Vice Chair, Legislative Information Services, Illinois*

Last July at the NCSL Legislative Summit in Philadelphia, I was elected staff vice chair for the 2009-2010 conference year. The ensuing five months have been a whirlwind of activity.

Since so many of you actively encouraged and supported my candidacy, and because Rich was desperate for content, I thought I’d provide a look into the role of an NCSL staff officer, at least from my perspective.

Briefly, for those who don’t know NCSL well, there are four legislator officers—president, president-elect, vice president, and immediate past president—and three legislative staff officers—staff chair, staff vice chair and immediate past staff chair.

The officers and the Executive Committee “have supervision, control and direction of the affairs of the Conference, its committees and publications.” The staff officers chair the Legislative Staff Coordinating Committee (LSCC), whose purposes are “to oversee the legislative staff division of NCSL, to coordinate the work of the ten staff sections of NCSL, to promote professional development of legislative staff, and to review and evaluate NCSL services to legislative staff. LSCC serves in an advisory capacity to the NCSL Executive Committee.”

Officers serve a one-year term in each respective position. Besides me, the 2009-2010 staff officers are Nancy Cyr of Nebraska as chair and Gary Van Landingham of Florida as immediate past chair. NALIT’s own Sharon Crouch Steidel was the chair immediately preceding Gary, and Jim Greenwalt was staff chair in 2004-05.

My term began with an officers’ meeting in Philadelphia, a lot of meeting and greeting and getting oriented to my new role, and an invitation to join the other officers on a trip to China in August.

The trip was sponsored by the Chinese Peoples' Friendship Association with Foreign Countries and involved visits to Beijing, Xi'an and Shanghai over 10 days. They treated us very well and did an excellent job of showing off the modernization of China. Besides the official meetings with various dignitaries, we were able to see many sights, including the Great Wall and the Terracotta Soldiers.

In September, I traveled to Austin to participate in the Professional Development Seminars of NALIT, LINCS (Legislative Information and Communication Staff), and LSS (Leadership Staff Section). As those of you in attendance know, I wasn't able to spend all my time with NALIT, but I did appreciate the opportunity to meet staff from LINCS and LSS and attend some of their programs. And I must point out that Linda and crew did a great job hosting NALIT, especially on such short notice.

The following week I went to Seattle for the ASLCS (American Society of Legislative Clerks and Secretaries) PDS. Nancy Cyr was there, so I had fewer officer duties, but I am a member of ASLCS as well as NALIT, and I presented for two different sessions of that meeting.

Also in September, I made a quick trip to the NCSL headquarters to Denver to get better acquainted with their staff and learn more about their operations. We all know how great Pam is, and I'm happy to say that I have yet to meet an NCSL staffer who wasn't friendly and helpful.

The fall meeting of the Executive Committee and LSCC was in Richmond Oct. 9-10. Gary Schaefer and Gary Wieman are members of the EC/LSCC, Linda Pittsford and Dave Larson are members of LSCC in their role as NALIT officers, and Michael Adams is a staff vice chair of standing committees and chairs the Technology Subcommittee for LSCC.

I chair the Strategic Planning Working Group of LSCC and serve as staff chair of the Programs and Strategic Planning Committee of the NCSL Executive Committee. While there, we toured the recently remodeled Capitol, and Sharon Crouch Steidel, Director of Information Systems for the Virginia House of Delegates, was a wonderful hostess.

October 19-23, I attended the Emerging Leaders Seminar in Chicago. This is an invitation-only program for up-and-coming legislative leaders. Not only was it informative to see this service that NCSL provides, but much of the content also was helpful to me as a staff director.

Immediately following that, I attended the first day and half of the second day of the Redistricting Seminar. This appears to be one of NCSL's more popular services, judging from attendance and reaction. I even ran into a couple of NALIT members there.

I went to Washington, D.C., November 2-6 for two purposes. The first was to meet with staff at the NCSL DC office. The second was to attend the World E-Parliament Conference; Jim Greenwalt of the Minnesota Senate also attended. I'll offer some thoughts on that meeting separately.

December is Fall Forum time, when the standing committees meet, among other groups. The meeting was in San Diego this year, where it was a lot warmer than it is here in central Illinois. Besides my official duties, I attended meetings of the Legislative Effectiveness Committee. There were a few other NALIT members there, including Duncan Goss and Gary Schaefer, who serve as staff vice chairs for the Communications, Financial Services, and Interstate Commerce Committee.

Mix in some phone calls and lots of email exchanges, and that's a picture of how my term has started. I deeply appreciate the opportunity to serve you and other legislative staff. It's kept me busy, but I am enjoying it all. Thank you, and I look forward to what lies ahead.

## **Kansas Legislative Information Systems Services (KLISS) Update**

*By Dave Larson, Director of Legislative Computer Services, Kansas*

The KLISS Software Application Build Project is proceeding as planned. Kansas accepted the KLISS core system in August 2009. The development of the lawmaking portion of the base system nears

completion at this time. Code building for the chamber automation, decision support and legislative interface portions continues as well, with their due dates set between March and December 2010.

The code is being developed by Propylon, Inc. for the Kansas Legislature in five highly integrated portions. The core system contains 70 percent of the core functionality defined in the requirements for the project across all portions—lawmaking, chamber automation, decision support and legislative interface.

Base systems for each portion build upon the core with functionality specific to that portion. Base systems will extend the system up to a minimum of 85 percent of the requirements. The base and core systems implementing 85 percent of the requirements will allow the Kansas Legislature to conduct sessions with functionality equivalent to today.

The remaining 15 percent will be developed in another project and extend the system to achieve re-engineered processes and functionality unavailable today. Final user training will be conducted in the fall of 2010. Kansas will implement the KLISS software application in January 2011 for use during the 2011 Kansas legislative session.

## Running for Office: The NALIT Process

*By Pam Greenberg, NCSL Liaison to NALIT*

Serving on the NALIT Executive Committee can be a rewarding professional and personal experience. As an officer or director, you play a major role in steering the overall direction of the association. As a member of the NALIT leadership team, you develop the agenda for NALIT sessions at the Legislative Summit, and you implement strategies to promote networking and information exchanges among legislative IT professionals across the country and internationally.

Typically, NALIT officers serve their terms in a natural progression from secretary to vice chair, and from vice chair to chair, which gives the secretary and vice chair the chance to gain the background and experience that can be helpful in taking on the

responsibilities of the role of chair. Therefore, the nominating committee usually focuses its work each year on recruiting and interviewing for the secretary position.

The secretary's primary duties include taking minutes of NALIT Executive Committee and business meetings, soliciting articles for the NALIT Newsletter and publishing it at least twice a year. The secretary also could be called on to preside over meetings in the absence of the chair and the vice-chair.

Consider running for the office of NALIT secretary. The nominating committee usually issues a call for nominations in late spring or early summer. Take a look at the qualifications and duties of officer positions, then talk with current and past members of the NALIT Executive Committee to learn what it's like to be part of a great organization!

### Mark Your Calendar

#### NCSL Legislative Summit

Louisville, Kentucky July 25-28, 2010

<http://www.ncsl.org/summit>

## NALIT at the NCSL Legislative Summit

NALIT's Executive Committee will soon start planning sessions to be held at the NCSL Legislative Summit in Louisville, Ky., July 25-28. NALIT meetings are tentatively scheduled to begin on Sunday afternoon, July 25, and will end late Wednesday afternoon, July 28. An evening social event at Churchill Downs on July 28 will provide the perfect highlight to your stay in Kentucky.

NALIT members who attended the 2008 NALIT Seminar in Louisville will remember the great hospitality we experienced there, thanks to our Legislative Research Commission hosts.

If you have ideas for topics or training you think should be offered at the Legislative Summit, please contact [Pam Greenberg](#), and she will pass along your ideas to the members of the NALIT Executive Committee.

## Legislative Technology Information on the NCSL Website

By Pam Greenberg, NCSL Liaison to NALIT

The following list of web pages may be of interest to NALIT members. Please help us keep the information on these pages current, accurate and complete. Access these web pages via the links below or by entering "Go" and the ID number (Go 13479) in the "Go" box at the upper right corner of the NCSL web site (pictured below).



Web Page	Go ID
<a href="#">Legislative Webcasts and Broadcasts</a>	Go 13479
<a href="#">State Legislative Bill Tracking and Subscription Services</a>	Go 13474
<a href="#">Closed Captioning of TV and Internet Broadcasts</a>	Go 13490
<a href="#">Legislative Information Technology and Internet Policies</a>	Go 15573
<a href="#">Legislative Information Technology Office Web Sites</a>	Go 15616
<a href="#">Legislative Web Site Privacy Policies</a>	Go 13493
<a href="#">Policies for Legislative Social Networking Sites</a>	Go 18215
<a href="#">Legislative Caucus Websites and Social Networking Sites</a>	Go 13409

## The "I" in Team

By Bryan Nehl, Software Development Supervisor, House Information Systems, Missouri

We often hear the expression, "There is no I in team!" Let's take another look at that. Where are the I's in team? To me, the first thing I think of is the individuals that make up the team. Some "I's" that are associated with the individual are

individuality, initiative, imagination, insight and intrinsic motivation.

I know some of you are going to find this hard to believe, but individuals don't always agree on everything all the time! *Individuality* and respectfully differing opinions should be welcomed on the team. It makes us stop and think about why we should take one approach and not another. We have some creative people on our teams, so we shouldn't be surprised that there will be multiple (noncompatible) solutions offered. Perhaps we can splice and merge together from the solutions offered to create an even better solution!

It will help in these times of differing opinion to consider that the other person, like us, is working toward the same common goal. A shared vision for a common good has been embraced by the team. It is important that there be open, respectful communication within the team since there will be people with differing personalities and skill sets. In a team setting like this, we come to expect that individuals who are subject matter experts will work with other members to achieve the common goal and to mentor and help them grow as well. The individual is truly valuable in what they bring to the overall health of the team.

Our team members show *initiative*! If they spot or think of a potential problem, they will bring it to the manager's attention and most likely already have thought of a solution. Individuals bring value to the team when they've exercised initiative to find a better way of completing a common task and share it with the team. For instance, if a team member demonstrates to the team a refactoring feature, or does something with an advanced language feature, the whole team benefits.

One of the most valued aspects of the individual is his or her *imagination*. Software development is a creative endeavor, especially UI design. The UI designer must think about how a user will interact with the software, keeping in mind principles such as "least surprise" and "expected default" and presenting a visually pleasing interface. The business layer developer must think about how the classes will work with each other and consider where inheritance and polymorphism make sense.

The difficult part for managers is knowing when and how to interject their own *individual* view on the solution.

Our team members bring valuable *insight* into our business processes. It is especially true that, in information technology, our development teams gain a deeper insight and understanding of the business practices the longer they have been with the organization. Oftentimes this insight can answer the question, "Why?" Be sure to create an environment that fosters true teamwork, pairing and cross training among all people on the team.

This individual we have been discussing is also likely *intrinsically motivated* to achieve his or her job goals and to continue professional development, while being a professional and doing high-quality work. Software standards and processes can be mandated and taught. However, until they become an *intrinsic* part of the individual's personal software process, the team will not see the benefit.

A team is not merely the sum of the *individuals* that make up the team. I believe when you look at truly productive teams, you will find an environment of communication and shared vision working toward a goal of common good.

If you would like to comment on this article, please visit my blog at <http://soloso.blogspot.com/>

This article will be published there in conjunction with the release of the newsletter. Find me on Twitter as @k0emt <-- that's a zero in there!

## World e-Parliament Conference

*By Tim Rice, NCSL Staff Vice Chair, Legislative Information Services, Illinois*

The World e-Parliament Conference 2009 was hosted by the U.S. House of Representatives in Washington, D.C., Nov. 3-5, 2009. This annual meeting is co-sponsored by the United Nations, the Inter-Parliamentary Union, and the Global Centre for Information and Communications Technology (ICT) in Parliament and brings together members of parliamentary assemblies and their staff to consider the use of ICT in their arenas, much the same as

NALIT meetings for U.S. legislatures. More than 450 delegates from around the world attended, representing more than 90 countries and assemblies.

The conference consisted of high level plenary sessions and more technically oriented breakout sessions. Each topic was addressed by a panel of experts from a variety of countries, providing a range of perspectives from different cultures, different requirements and expectations, and different capabilities, whether technical or economic. Session topics included:

- ICT strategic planning, management and oversight: the complexity of the legislature environment
- How parliamentary websites can serve different purposes and users
- The use of new media in the parliamentary environment: lessons learned
- Systems for managing the lifecycle of legislative documentation
- Chamber technologies: experiences and trends
- Open standards for parliamentary documentation
- Implementing XML in parliament
- Infrastructure and security: policies and implications in legislature settings
- Technology options for recording and reporting floor and committee proceedings
- Enhancing parliamentary library services through ICT

Most, if not all, of those topics should look familiar to NALIT members, as they are topics we ourselves address in our meetings. For me, there is great value in learning how other assemblies meet these challenges and opportunities, and this conference broadened my scope even further. Although there is similarity in why we use ICT to serve our assemblies, there is great diversity in how we

achieve that. The NALIT network has been invaluable to me in my work, and now my network is even wider.

P.S. The conference was held in the newly opened Capitol Visitor's Center, which is a marvelous facility in its own right. The staff of the U.S. House of Representatives were wonderful hosts.

## An "xmlwrapper" for the Exchange and Archive of Legislative Bills

*By Tim Orr and Isaac Holmlund, Revisor's Office, Minnesota*

### Overview

Organizations have always tracked the contents of public bills in a state legislature. These organizations include cities and towns, state agencies and businesses, to name a few. Interest in a bill may extend beyond the state of origin to other state legislatures, national corporations, the NCSL and the Library of Congress.

How do these organizations obtain bill contents? If bills from a single legislature are desired, the legislature's web site is a convenient source. However, when bills from multiple legislatures are desired, web sites become onerous. Different legislatures use different file formats to publish bills.

Some of the more popular formats are: PDF, HTML, and MSWord. Legislatures that use XML-based bill drafting systems may wish to distribute bills in the XML file format along with supporting files e.g., DTD, XSD, XSL, CSS. When bills from multiple legislatures are desired, an organization must devote increasing resources (people or software) to navigate web sites when retrieving the desired file formats.

This paper describes an experimental file format for storing legislative bills. The file format is called the "xmlwrapper" format because it wraps existing files and metadata in XML. For each bill a single XML file is created that contains all the files a legislature chooses to publish. The format uses a legislature's existing file formats; no transformations are necessary. The xmlwrapper file format is identical

regardless of the legislature creating the file. The xmlwrapper format allows organizations to obtain bills from multiple state legislatures with small or no increase in resources. The file format may eventually prove useful for state legislatures and state archives to archive bills.

### Background

In 2007, the Library of Congress' [National Digital Information Infrastructure and Preservation Program](#) (NDIIPP) initiated four new state-level projects, including Minnesota's [A Model Technological and Social Architecture for the Preservation of State Government Digital Information](#). The Minnesota Historical Society is leading the effort in partnership with organizations in nine other states. The [project web site](#) contains additional information. Project completion is scheduled for July 2011.

One project objective is to "Capture, preserve and provide access to 'at-risk' digital content from state legislatures." To address this objective, project members selected legislative bills, which are applicable to all state legislatures. Every state legislature has voluminous quantities of bills, ranging from short and structurally simple to long and complex. Bills are stored in file formats that vary by legislature. The digital file(s) storing a bill are desired by multiple organizations within and beyond the originating state.

To capture the digital content of bills, project members designed the xmlwrapper file format. The anticipated benefits of this format are its usefulness:

- in all legislatures, because it is a simple, open, XML format;
- to all types of bills from short and simple to long and complex;
- with any file formats already in use by a legislature; and
- for transmission across the Internet to consumer organizations.

The Minnesota Revisor's Office is building a software prototype to collect feedback from project partners and other organizations that create or process legislative bills.

## Designing the Wrapper

The wrapper was designed to be technically simple to implement, requiring minimal labor from legislative IT staff. Few metadata elements are required. Optional metadata elements, on the other hand, allow additional data to be volunteered. Whether a particular legislature provides the minimum data or data for every optional element,

the wrapper allows the information to be archived efficiently.

No requirements are placed on legislative staff to modify their documents. Key metadata are standardized, but states can continue to use their own data formats. This clear separation was a vital consideration in the design of the wrapper schema.

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### xmlwrapper File Format

[Figure 1](#) shows the simplicity of the xmlwrapper file format. It contains the root XML tag <document> and four child tags:

- <metadata> ..... Contains tags that identify and describe the document. These tags are always present. Two key objectives of the project are to: 1) refine these tags to be applicable to any legislature's bill; 2) create an open standard for these tags. Meeting these objectives will allow consumers to develop software applications to automatically input and categorize xmlwrapper files from any legislature.
- <xml.source> ..... Document in XML format if available or empty. If a legislature chooses to include a bill in XML format, the XML is written here. Translations are not necessary.
- <html.rendition> ..... Document in HTML format if available or empty. If a legislature chooses to include a bill in (X)HTML format, the (X)HTML is written here. Translations are not necessary.
- <attachments> ..... Document in all other available formats or empty. If a legislature chooses to include a bill in other formats (e.g., PDF, mainframe formats, etc.), the data is written here without translation.

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A complete xmlwrapper file is available at <https://www.revisor.mn.gov/beta/mhs/ex/MN-200900HF1053-2.xml>.

For comparison purposes, the status and text of the bill in Figure 1 are available at [https://www.revisor.mn.gov/revisor/pages/search\\_status/status\\_detail.php?b=House&f=HF1053&ssn=0&y=2009](https://www.revisor.mn.gov/revisor/pages/search_status/status_detail.php?b=House&f=HF1053&ssn=0&y=2009).

### xmlwrapper Prototype Application

A software prototype is being developed to generate xmlwrapper files for bills introduced in the Minnesota Legislature. The prototype will incorporate project feedback and allow file format and transmission methods to be demonstrated and measured. [Figure 2](#) shows the process flow for generating xmlwrapper files for Minnesota bills.

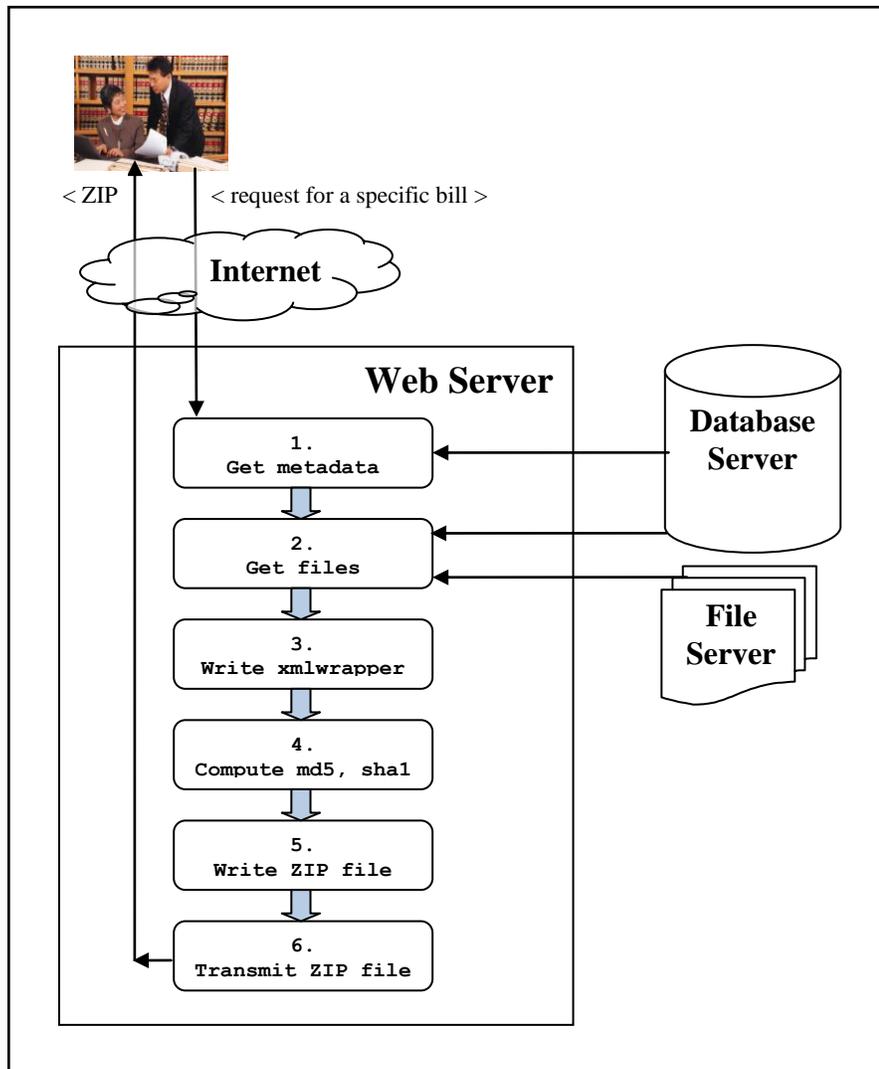
**FIGURE 1. OVERVIEW OF xmlwrapper TAGS**

```

<?xml version="1.0" encoding="utf-8"?>
<document>
<!-- ***** -->
<!-- METADATA -->
<!-- ***** -->
    <metadata> ... </metadata>
<!-- ***** -->
<!-- XML SOURCE -->
<!-- ***** -->
    <xml.source> ... </xml.source>
<!-- ***** -->
<!-- HTML SOURCE -->
<!-- ***** -->
    <html.rendition> ... </html.rendition>
<!-- ***** -->
<!-- ATTACHMENTS -->
<!-- ***** -->
    <attachments> ... </attachments>
</document>

```

**FIGURE 2. SOFTWARE PROTOTYPE'S PROCESS FLOW**



The process steps are:

1. Input minimal but sufficient metadata about the bill (from the bill status system);
2. Input file format(s) used by the legislature (e.g. XML, XHTML, PDF);
3. Wrap the files and metadata in XML;
4. Output a single XML file - the xmlwrapper file;
5. Compute hash values (md5 and sha1) for the xmlwrapper file;
6. Output a zip file containing the xmlwrapper file and hash values; and
7. Transmit the xmlwrapper file across the Internet.

The [project web site](#) will describe how to access the prototype when it is completed.

In addition to creating the xmlwrapper file, the software prototype is experimenting with methods for the consumer to authenticate the provider and the file contents. To authenticate the provider, the web server uses an http secure (https) connection and a digital certificate. To authenticate the contents of the xmlwrapper file, md5 and sha1 hash values are computed for the xmlwrapper file. The hash values and the xmlwrapper file are added to a zip file. The zip file is transmitted to the consumer. A sample of the zip file is available at <https://www.revisor.mn.gov/beta/mhs/ex/MN-200900HF1053-2.xml.zip>.

### Issues and Future Work

Numerous issues exist and will be addressed in the next year. With each file format included in the xmlwrapper comes the possibility of additional files. A provider may wish to include the schemas or DTDs that define the structure of the wrapped XML. Perhaps formatting style sheets could be volunteered such as XSLT or XSL-FO. (X)HTML files may require that CSS and JavaScript files be provided.

The metadata tags need review and refinement by the other project partners. The goal is to define the smallest set of tags that is sufficient to capture essential bill information from any state legislature.

Images require careful consideration. The xmlwrapper format can store images in any format. References to image files differ on the originating and consumer systems. Documents on the originating system can retrieve images from a database or file system. Identical database and file systems will not exist at the consumer's site.

Internet transmission methods need to be evaluated. First, should files be pushed by the provider or pulled by the consumer? Second, what protocol should be used: FTP, SOAP, REST, or others?

Although these issues are significant, technical solutions are available. The challenge is to select solutions that make the xmlwrapper file format useful to the largest number of legislatures and impose the smallest burden on legislative and consumer IT staff.

## Call for Newsletter Articles

Publishing this newsletter would be impossible **without your participation.**

What kind of articles do we need?

- Descriptions of IT-related projects undertaken by your office.
- Reviews or studies that your office has conducted on IT-related issues.
- IT-related policies or systems implemented in your state (not just by your office) that affect legislative IT operations.
- Anything at all that you think would be interesting to your peers in other states.

No word limit (or minimum). A typical article is two or three single-spaced pages, but longer or shorter articles are fine. The more articles we have, the better the publication!

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## NALIT's Purpose

1. To promote the exchange of ideas and information on all aspects of legislative information systems. This includes, but is not limited to, the management and technical development of these systems.
2. To provide a network of information exchange among persons involved in providing management and technical support for legislative information systems.
3. To provide improved communications and foster better relations between legislative information systems management and staff, and the legislators and legislative staff they serve.
4. To promote the service of the Association membership on the various committees, subcommittees, task forces, etc., of NCSL.
5. To enhance the professionalism of the members of the Association through activities supporting the purposes noted above.

