

The Technology Accessibility Implementation Project Report to the Legislature

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Background

The continuously evolving nature of information technology is changing the way Minnesota state government delivers services to the public. The use of electronic services – which include corresponding online with elected officials, providing information about government services, renewing licenses, providing tax information and filing returns, and applying for jobs or benefits – will only increase as citizens come to expect government to implement the same new technologies and services they use in the private sector.

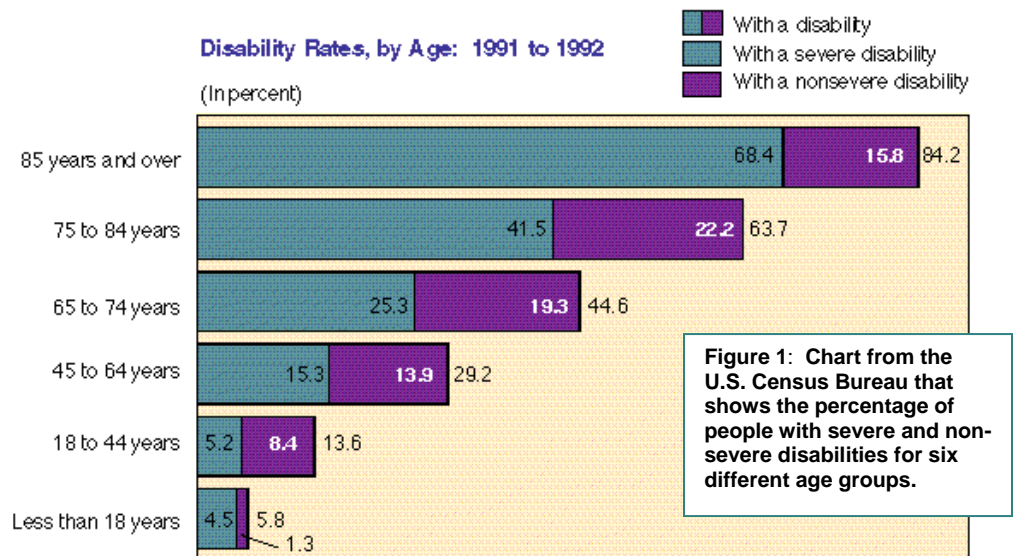
Likewise, state government employees increasingly depend on information technology to support state government services, using technology to communicate through email, and to manage documents and schedules. Applications and systems may be used by all employees, (e.g., the HR/payroll system), a significant number of employees (e.g., the procurement/accounting application), or they may be agency- or role-specific (e.g., a case management application).

The State’s use of information technology goes far beyond software applications. Printers, copiers, LCD projectors, training webinars, and even Voice over Internet Protocol (VoIP) telephones are widely used and connected to the information technology infrastructure.

As budgetary pressures and the increased technical sophistication of citizens continue to drive government’s use of information technology (IT), agency staff and policy makers must make sure that electronic government services – and the technology that powers them – are accessible, and both easy to understand and use for all Minnesotans - citizens

and State employees, alike. In particular, accessibility must become an integral part of future system development and a standard for the purchasing of IT equipment and software.

Attention to technology accessibility becomes increasingly important as the population ages. The U.S. Census Bureau table



(right) demonstrates that disability statistics rise significantly by age group. These statistics take on more significance with baby boomers entering retirement age. And as people age, they will likely require more state government services and will increasingly look online to find them.

Legislation

The Technology Accessibility Implementation Project is the result of a new law (2009 Minnesota Laws, Chapter 131). The purpose of the project is to define and implement standards and processes that improve equal access to those State of Minnesota services delivered through information technology.

According to the legislation, the standards developed by the chief information officer “must incorporate Section 508 of the Rehabilitation Act, United States Code,” and “the Web Content Accessibility Guidelines 2.0,” unless any standard poses an undue burden to the state. The legislation provides that an “undue burden” means “significant difficulty or expense determined and documented by the funding agency, including but not limited to difficulty or expense associated with technical feasibility.” (2009 Minnesota Laws, Chapter 131, Section 10, Subdivision 9)

The Section 508 standards cover the full range of electronic and information technologies, including those used for communication, duplication, computing, storage, presentation, control, transport and production. This includes computers, software, networks, peripherals and other types of electronic office equipment. The Web Content Accessibility Guidelines 2.0 (WCAG 2.0) is part of the international standards and best practices for accessibility and usability recommended for web developers by the World Wide Web Consortium.

This project is intended to support the Office of Enterprise Technology’s (OET) statutory mandate to implement the new law. The project’s scope is to develop and implement the standards and processes necessary to enhance end user accessibility to State of Minnesota information technology systems and delivery of services, utilizing information technology systems. The final outcome of this project will benefit both citizens and State employees.

To accomplish its goals, the project will work with both OET’s Information Technology Standards and Resource Management Division and the Department of Administration’s Materials Management Division to help the State include accessibility standards in the purchase of hardware, software, and online applications under Minnesota Statutes 2008, Chapter 16C. The standards will focus on these broad technology areas:

- End-user hardware, software and online applications purchased by the State
- End-user software applications, web-based applications, websites, online forms and online surveys developed by the State
- Webinars, live videoconferencing, web streaming, and podcasts created or purchased by the State

The legislation provides specific guidelines for setting up an advisory committee. The advisory committee consists of ten members representing State Services for the Blind (Department of Employment and Economic Development), the Department of Administration, STAR Program, Commission of Deaf, DeafBlind, and Hard of Hearing Minnesotans, Department of Health, Department of Education, Department of Human Services, the Judicial Branch, the Legislative Branch, and the Office of Enterprise Technology.

The two year-long project (scheduled to sunset June 30, 2011) provides funding to the Office of Enterprise Technology to conduct the Technology Accessibility Standards Implementation Project. The \$275,000 allocated to the Office of Enterprise Technology will be used to hire dedicated staff for the duration of the project and fund project activities.

Funding was provided to the Office of Enterprise Technology as follows:

- American Recovery and Reinvestment Act of 2009 (Department of Employment and Economic Development)
 - FY10 - \$50,000
 - FY11 - \$25,000
- Telecommunications Access Minnesota Fund (Department of Commerce)
 - \$100,000 each year – FY10 and FY11

Additional appropriations include:

- American Recovery and Reinvestment Act of 2009 (Department of Employment and Economic Development)
 - \$100,000 each year to the Department of Administration to implement technology accessibility standards
- Telecommunications Access Minnesota Fund (Department of Commerce):
 - \$100,000 each year to the Commission of Deaf, DeafBlind, and Hard of Hearing Minnesotans to provide information on their web site in American Sign Language and to provide technical assistance to state agencies
 - \$100,000 each year to the Legislative Coordinating Commission for a pilot program to provide captioning of live streaming of legislative sessions on the commission's web site

Project Approach

The legislation that created this project set aside funding for two positions: one in the Materials Management Division of Administration, the other in the Standards Division of the Office of Enterprise Technology. The legislation also specifically set up an advisory committee to advise the State Chief Information Officer (CIO) and conduct a series of tasks supportive to the project. A project steering team has also been established to advise the project sponsor and project manager on project approach and risk and issue management.

The general project approach is as follows:

Procurement standards: The two new hires will create or modify state IT procurement standards, contracts, and supporting processes utilizing the federal standards in Section 508 and the Web Content Accessibility Guidelines (WCAG) as a foundational guide. These staff will use existing processes for development and review of standards, such as convening groups for input. Their work will be further reviewed by the advisory committee. Resulting recommendations for standards and supporting processes will be forwarded to the State CIO for review and implementation.

Web development standards: Standards and processes related to application and web development will be developed with the help of the State's Enterprise Architect and the Application Management manager. These standards and supporting processes will go through the same review, approval and implementation process as the procurement standards.

Objectives

The Technology Accessibility Standards and Implementation Project will create the standards and processes that will enhance state government's ability to purchase and develop accessible technology moving forward.

Key objectives:

- Adopt technology accessibility standards and create processes that can be implemented cost effectively
- Integrate accessibility standards into existing information technology procurement and master contract processes
- Integrate accessibility standards into the State of Minnesota's enterprise architecture
- Create technology accessibility policies that are achievable and enforceable
- Create objective metrics that lead to continuous improvements in technology accessibility standards and processes

Desired outcomes:

- Increased use of state government websites by citizens with disabilities
- Improved ranking in national surveys for accessibility and usability of e-government services
- Increased state government employment opportunities for individuals with disabilities

It is important to note that this project's scope is not to convert all current state government technology. The cost to retrofit previously purchased or developed technology would be prohibitive. Therefore, at the conclusion of this project, not all Minnesota state government systems will be accessible. However, the implementation of standards and guidelines for future purchases and system development will result in increases in accessibility, as regular updates are made to the State's technology products and services.

Furthermore, it is worthy to remember that technology accessibility is a journey, not a destination. The federal government's Section 508 guidelines have been in place for nearly a decade. However, the U.S. General Services Administration (GSA) finds that 52% of federal government purchasing solicitations in FY2009 did not mention or address Section 508. This compares with 83% non-compliance in FY2007, an improvement of 31% in two years. In a similar fashion, this State project aims to improve accessibility for the State but does not claim it will solve all accessibility problems overnight.

Project Progress

The Technology Accessibility Implementation Project was formally launched in August 2009. Key project activities to date include:

- Project sponsor and project manager assigned
- Advisory Committee established
- Project Steering Team established
- Procurement/Accessibility staff in OET/ISRM and Admin/MMD hired
- Project plan under development
- Project Team development and training underway
- Project communication and awareness activities
- Technology Accessibility Advisory Committee, five meetings as of December 31, 2009

Progress on technology accessibility efforts performed by the Commission for Deaf, DeafBlind, and Hard of Hearing Minnesotans and the Legislative Coordinating Commission can be found in the appendices to this document.

Project Activity

The first few months of the Technology Accessibility Implementation Project have been spent planning the project and setting up project resources, including budgets and teams. The project planning phase included development of the following documents:

- Scope Document
- Communication Plan
- Risk Management Plan
- Project Budget
- Advisory Committee and Steering Team Charters
- High Level Schedule

From the inception of the project, the project team has looked for opportunities to raise awareness about technology accessibility. This communication is taking two paths:

- Awareness of the new statute and efforts underway to implement standards and processes
- Identifying resources (e.g., on-line training, website testing) that can be used on current state government projects to enhance accessibility

Examples of the project's early communication efforts include:

- The project manager and members from the Advisory Committee and Project Steering Team staffed an information booth for Minnesota Government IT Symposium attendees. The booth distributed information about the project and its objectives and offered information about resources already

available through programs such as STAR. The Technology Accessibility Implementation Project presented a session at the conference entitled: Why IT Accessibility Matters: its Minnesota Law!

- At a separate event, an OET web designer led a workshop for state government web masters entitled, “Creating Accessible Forms: Understanding the Section 508 and WCAG 2.0 Standards,” attended by 17 individuals representing ten different agencies and boards.

Next Steps

All project deliverables will be subject to an objective and transparent methodology that includes a standard, iterative development process of design, build, test, and launch.

Design	During the design phase, information will be gathered through facilitated focus groups and research of technology accessibility implementations in other government entities. Some of the outcomes of the design phase will include: identification of issues, list of stakeholders and their requirements, lessons learned from other states, and tables that map Section 508 and WCAG 2.0 standards to State of Minnesota processes.
Build	During the build/implement phase policies, processes, guidelines, metrics, communication and training will be created and documented. The specific items to be built will be identified during the design phase.
Test	All processes will be piloted during the Test Phase. Processes will be measured, evaluated and, when necessary, improved. These activities will occur throughout the project as standards and processes are ready to be launched.
Launch	Rollout of the project deliverables, communication and training identified for the various stakeholders represent the type of deliverables planned for this phase. These activities will occur throughout the project as standards and processes are ready to be launched.

In January, work will begin to implement technology accessibility into the enterprise architecture and standards for technology products and services.

IT Products and Resource Management (ISRM) is a division within OET that sets universal standards for technology products and services. The central procurement office of the Department of Administration’s Materials Management Division then establishes vendor contracts to meet those standards. The result is a substantially lower purchase price, time savings, and better technology for the State and improved technology services for citizens. There are standards in place for end-user hardware such as laptops, desktops, media, and multi-function devices. ISRM convenes cross-agency groups to review and refresh standards. These standards are reviewed twice a year, ensuring that the technology is current. Beginning with reviews in January 2010, accessibility standards will be included in the refresh.

Project Leadership and Management

The Technology Accessibility Implementation Project is being managed according to the OET Project Management Office (PMO) processes and best practices. The project is included in the OET Project Portfolio and is recognized as a high priority project.

Minnesota's Chief Technology Officer, is the project sponsor. The project sponsor provides executive team approval, has budget ownership for the project and is the major stakeholder and recipient for the project deliverables.

The assigned project manager from OET provides overall management to the project. The project manager is accountable for establishing a project plan, developing and managing the work plan, securing appropriate resources, delegating the work, and ensuring successful completion of the project. The project manager handles all project administrative duties, interfaces to the project sponsor, owner, and team members and has overall accountability for the project.

Project Staffing

The 2009 legislation provided biennial funding to the Office of Enterprise Technology and the Department of Administration for this project. Each department is using a portion of these funds to hire two procurement/accessibility specialists to assist in the development of the standards and to help guide the implementation process as the standards are incorporated into the state government procurement and development processes. Hiring for these positions was completed by early November 2009. Both individuals hold advanced degrees in public policy and have experience with the disability community and/or policy experience related to the disability community.

Additionally, the Office of Enterprise Technology will draw upon its existing Enterprise Architecture and Application Management staff when needed to implement processes and policies related to both procurement and application and web development standards.

Technology Accessibility Advisory Committee

The legislation provides specific guidelines for setting up a technology accessibility advisory committee to assist the Chief Information Officer in determining whether a standard poses an undue burden to the state. The committee is also responsible to:

1. Recommend review processes to be used for the evaluation or certification of accessibility of technology against accessibility standards.
2. Recommend an exception process and thresholds for any deviation from the accessibility standards.
3. Identify resources for training and technical assistance for agency staff, including instruction regarding compliance with accessibility standards.

4. Convene customer groups composed of individuals with disabilities to assist in implementation of the standards.
5. Review customer comments about accessibility and usability collected by State Services for the Blind.
6. Develop proposals for funding captioning of live videoconferencing, live webcasts, web streaming, podcasts, and other emerging technologies.

Much of the work of the advisory committee is done concurrently with standards development.

The Technology Accessibility Advisory Committee held its initial meeting on August 31, 2009. The committee meets monthly on the third Wednesday of each month. Since its inception the committee has:

- Elected a chair
- Approved a team charter
- Begun educating itself on topics relevant to its work
- Begun the review of public complaints about accessibility and usability gathered by State Services for the Blind

The agenda for each Advisory Committee meeting includes a project status update and the opportunity for public comments.

Membership on the Advisory Committee

James Kauth	Office of Enterprise Technology
David Andrews	State Services for the Blind (DEED)
Betsy Hayes Advisory Committee Chair	Administration
Kim Moccia	STAR Program
Jamie Taylor	Commission of Deaf, DeafBlind, and Hard of Hearing Minnesotans
Cindy Le	Health
Joan Breslin-Larson	Education
Bruce Hodek	Human Services, Deaf and Hard of Hearing Services
Julie Dinger	Legislative Branch
John Kostouros	Judicial Branch

Technology Accessibility Project Steering Team

The Project Steering Team provides assistance in resolving issues that arise beyond the project manager's jurisdiction. As a group, they monitor project progress and provide advice on project planning and risk assessment. The steering team consists of organizational peers and represents a combination of direct and indirect customers and high-level stakeholders.

The project steering team held its first meeting October 2, 2009. The team meets monthly on the second Wednesday of each month. The steering team, according to its charter, will meet at least once a quarter. Since its inception, the Steering Team has:

- Approved a team charter
- Reviewed project planning documents

Membership on the Project Steering Team

Kent Allin	Administration
Betsy Hayes	Chair of the Technology Accessibility Advisory Committee (Administration)
Chuk Hamilton	State Services for the Blind (DEED)
Mary Hartnett	Commission of Deaf, DeafBlind, and Hard of Hearing Minnesotans
Thomas Baden	DHS/OET – Enterprise Architect
Ed Valencia	Project Sponsor – OET
Rena Rogers	Project Manager – OET

Appendix I

Legislative Coordinating Commission

Technology Accessibility Progress Report: Streaming Video Captioning Pilot Project

Project Description

The Legislative Coordinating Commission (LCC) has been charged with conducting a pilot project of providing captioning of live streaming video of the 2010-2011 legislative sessions on the Legislature's website. This project is required in Minnesota Session Law 2009, Chapter 131, Sec 16(a)(3). The LCC, after conducting research and with consultation and input from Senate Media Services and House Public Information Services, decided to test the viability of voice-to-text/echo-captioning technology for offering captioning of the Minnesota Legislature's online broadcast. This coverage has not offered captioning in the past. Our objective is to assess the technology of echo-captioning in addition to considering accuracy, efficiency and cost.

The pilot project has been divided into two phases with the first phase occurring during the 2010 legislative session and the second phase occurring during the 2011 legislative session. Evaluation will occur at the conclusion of each phase.

Progress

Research into other legislative captioning models and processes, various software platform options, and software vendor offerings were investigated over the summer months. Input from advocacy groups was also sought. A request for proposals for on-site echo-captioning services was published in the State Register on November 2, 2009. Voice-to-text software has been procured and staff orientation of the software has begun. Set up of the echo-captioned work space on the Capitol Complex has begun.

Next Steps

Submitted proposals are currently being evaluated for contracting of echo-captioning services for the 2010 legislative session. The contractor will issue monthly reports to the LCC that describe problems that occurred, if any, and any recommendations that the contractor may have. The LCC will assess the accuracy rate and the error rate that occurred during the phase one of the pilot project and will conduct side-by-side comparisons of transcripts of a stenographer-captioned period compared to an echo-captioned period. Process and technology integration will be evaluated and costs will be considered. The LCC will also seek input from the deaf and hard-of-hearing community as to the quality of the voice-to-text caption output relative to other live captions that they have seen. The analyses of phase one will help determine the direction for second phase of the pilot project.

Appendix II

Commission of Deaf, DeafBlind and Hard of Hearing Minnesotans Technology Accessibility Progress Report

Project Description

The Commission of Deaf, DeafBlind and Hard of Hearing Minnesotans (MCDHH) received funds for FY 2010-2011 to provide information on their website in American Sign Language (ASL) and to provide technical assistance to state agencies. This project is required in Minnesota Session Law 2009, Chapter 131, Sec 16(a)(2). MCDHH has negotiated a contract for \$5,000 for H1N1 updates in ASL, is providing technical assistance to state agencies on implementation of the law, and has developed an RFP for \$190,000 for FY2010 and FY2011 for video production and technical assistance.

Progress

MCDHH has produced videos in ASL, provided technical assistance to state agencies and has issued an RFP on video production and technical assistance.

Videos in ASL

MCDHH entered into a contract with Deaf MD to create updates in American Sign Language on H1N1 in consultation with the Minnesota Department of Health (MDH). Seven short videos have been produced and are posted at www.mncdhh.org. There is also a link on the MDH website to Deaf MD. New videos will continue to be produced and posted as updates from the Center for Disease Control are issued. MCDHH is also co-producing a video on hearing loss that will be produced by TPT in American Sign Language.

Technical Assistance

The commission has provided the following technical assistance:

- Participated as a member of the hiring team for the new OET staff position.
- Provided consultation on Section 508 and WCAG 2.0 implementation to OET staff, specifically on video captioning and national and local Section 508 and WCAG 2.0 resources.
- Conducted an audit of state websites on the number of videos that are posted by agencies that are captioned and the number of podcasts that have scripts.
- Serve on the Usability and Accessibility Committee and on the Usability and Accessibility Project Steering Committee.
- Covered the costs of a booth and sign language interpreters at the 28th Annual Minnesota Government Information Technology Symposium on December 9, 2009, in collaboration with OET and the Governor's Council on Developmental Disabilities for the purpose of providing information on the new law to conference participants.

- Co-presented at the December 9 symposium with OET on the new law.
- Submitted a workshop proposal that was accepted by the Minnesota Council of Nonprofits Minnesota Council of Nonprofit's Technology Conference in March 2010.

RFP for ASL Video Production and Technical Assistance:

In the summer of 2009, MCDHH conducted research of online ASL video production in other states and on the availability and quality of online technical assistance for captioning. An RFP was issued and has been posted on the State Register website. The RFP is in three parts:

1. Online Video Course: Partners in Policymaking: Making Your Case® in American Sign Language
2. Open and Closed Captioned Instruction and Technical Assistance
3. Ten to fifteen videos produced in ASL that will be developed in collaboration with state agencies.

Next Steps

Proposals for the RFP are due on January 18, 2010. A committee will review proposals from respondents and will select a contractor or contractors. The contract work is anticipated to begin in the second week of February 2010.