**IT Accessibility for State and Federal Government**

**New Guidance for IT Accessibility: It Can’t Be an Afterthought**

**Excerpt/summary:** One in five citizens needs some kind of accommodation when accessing digital government services. Whether due to disability or even the size of a mobile display, accessibility is a sometimes forgotten requirement that must be designed into every government IT project from its inception.

**By Rutrell Yasin**

User experience isn’t a term that government agencies bandied about years ago. Back then, accessibility meant adding a ramp to the service entrance for the wheelchair bound. These days, however, government services are going electronic, and agencies have to ensure their services are available to the entire range of potential users. h

State CIOs capped years of work on the subject in July, publishing a new accessibility framework for the National Association of State Chief Information Officers designed to ensure government IT systems are designed to accommodate citizens who may be blind, deaf, have a limited range of movement, are color blind, or have limited internet access.

In all, nearly one in five people – 19 percent of the nation’s population – need some form of accommodation. NASCIO’s Policy-Driven Adoption for Accessibility (PDAA) framework lays out requirements for accessibility that state CIOs can implement across their sphere of influence.

Jeff Kline, a major contributor to NASCIO’s accessibility project and program director of Statewide EIR Accessibility with the Texas Department of Information Resources, said IT accessibility should be woven into the fabric of a product from the requirement stage, and remain front-of-mind through development and testing.

The framework states that IT accessibility requirements should be articulated in the state’s enterprise architecture and that IT accessibility criteria should be written into policies, key business processes, organizational culture, and management structures.

Sarah Bourne, director of IT accessibility with the Massachusetts Office of Information Technology, and a contributor to NASCIO position papers on PDAA, agreed.

“A lot of what PDAA is trying to do is get people to understand accessibility is not something you do at the end,” she said. Accessibility needs to be an integral part of a state’s enterprise architecture, she said. “You can’t sprinkle magic accessibility dust and have it all be better at the end. You have to build it in,” Bourne said. “If you pick a Java script library, you have to pick one to meet the accessibility standards.” Website color schemes have to meet requirements for color contrast. “You don’t want to find out two weeks before the site goes live” that your colors don’t past the test.

**Accessibility Guidelines**

The law behind accessibility is contained in Section 508 of the Rehabilitation Act of 1973, which as amended in 1998, requires all federal departments and agencies to ensure that their electronic information and technology is accessible to people with disabilities. Along with other accessibility standards and guidelines, the law mandates that people with disabilities must have equal access to government services.

Accessibility is not limited to people who are blind, deaf or confined to wheel chairs. Regulated disabilities also include color blindness, dyslexia, people with slow reaction times, short-term memory issues or cognitive disabilities, and even near-sightedness.

Websites must be designed, for example, to be understood by colorblind users who may not be able to see certain colors with a low contrast ratio. Government applications should display a color contrast ratio of 4:5:1 to ensure content is easily visible to color-blind users, according to Desarae Veit, a ‎senior UI/UX designer with General Dynamics Information Technology.

Likewise, red may be used to indicate a warning message, but that message should also include a warning icon and the word **ERROR/WARNING** in bold text, to ensure all users absorb the meaning of the warning. This is especially important as some users may rely on assistive technology, such as brail readers or automated audio, to read and navigate applications or websites.

Almost every state has IT accessibility policies in place, but adoption of those policies has been slow and implementation of accessibility technology inconsistent in part because the adoption of any large program can be a challenge for state governments. Plus, the way states have setup their IT departments adds layers of complexity. For instance, some have a centralized IT department while others autonomous agencies, each with its own IT department, Kline said.

“Accessibility is seen as being only applicable to government, so we don’t get people coming in who know anything about it,” Bourne said.

“We’ve done tons of outreach, awareness raising and training, but we always have new people coming and going.” What’s more, IT departments are competing for the necessary resources to raise the accessibility IQ of people who will be responsible for implementing accessibility policies and technology.

So the focus has been on IT procurement methods, finding ways to ensure that accessibility requirements are included in contracts through a standard process, Bourne said. The problem with this scenario is IT and procurement people tend to stick the required accessibility language into the contracts without really understanding what it means.

“It would help a lot if technical and business schools were actually including accessibility [into the curriculum] whenever they are talking about compliance requirements,” Bourne said.

**Legacy System Tech Challenges**

Technical challenges with enterprise legacy systems have also hampered or slowed down efforts to make these applications work in 508-complaint web sites.

“Enterprise systems have been a struggle for us,” said Jay Wyant, Minnesota’s chief information accessibility officer, who is also involved in the development of PDAA. Over the past three years, the state has undergone a comprehensive initiative to consolidate IT systems, employees, and administration. As part of that consolidation effort, the state’s IT department, MN.IT, established a statewide project management office to ensure greater accountability for the state’s major technology investments and contracts.

The real challenge with IT accessibility has been on the back-end with the huge Enterprise Resource Planning systems, which run mission critical applications such as accounting, human resource, workforce management and payroll, Wyant said. Developers of enterprise software such as Oracle and SAP over the years have acquired other software companies. As a result, many enterprise applications have been bolted together without regard to accessibility.

The emergence of mobile technology; HTML 5, the markup language for creating content on web sites; and web interface technology are significant developments that make it possible to make older applications more compliant with accessibility guidelines, but still the process has been slow, Wyant acknowledged.

Enterprise commercial software tends to have millions of lines of code, built over the years when accessibility was not a consideration, so developers keep putting on Band-Aids until they reach the point where the product has to be entirely revamped, Kline noted. At that point they can improve the accessibility capabilities.

The move to web interfaces has given application developers in Massachusetts more ways to fix accessibility problems with their legacy systems, said Bourne.

“Before, when it was a desktop system, that was the way it was. You were completely dependent on the vendor addressing whatever issues there were,” she said. “But with the web interfaces, you often have opportunities to make configurations or customizations that can address some of the problems that prevent the people from using it to do their jobs.”

In recent years, Oracle, SAP, and other providers of enterprise software have set up accessibility programs to ensure their software complies with Section 508 and WCAG guidelines. The requirements typically cover areas such as self-descriptiveness, system feedback, error avoidance, consistent user interfaces, and control and supervision.

**PDAA Adds Insight**

Adding PDAA documentation requirements to existing accessibility documentation requirements can provide additional insight into vendors’ commitment to IT accessibility, Kline said. This could help government procurement organizations choose vendors whose products and services can help them meet their legal obligations on accessibility over time.

Vendors with mature accessibility governance systems are likely to produce more accessible products and more accurate product documentation such as that contained in the Voluntary Product Accessibility Template (VPAT) documents, according to the NASCIO position paper on PDAA. A VPAT is a document provided by a vendor documenting compliance with Section 508. Government procurement organizations typically require VPAT documents or similar reports as part of IT contractual requirements.

However, “the concern is when someone delivers to us the VPAT, which is supposed to tell you how well a product complies with 508 technical standards, and the VPAT is poorly written,” Kline said. To be useful to a government procurement officer, a VPAT must be based on a comprehensive review of all the product’s features and functions used by agency employees or citizens.

The same holds for development of a web site. How do agency managers know the vendor is going to deliver an accessible website? They take the vendors word for it and when it is tested, they find it is not accessible, resulting in more work and costs overruns.

These are all very significant issues, Kline said

Instead of constantly urging vendors to comply with the standards, the PDAA approach is designed to help them realize they need a policy that includes criteria for accessibility training as well as integration into business processes and organization structure. This in turn will give government agencies more confidence in the VPAT process and they can deliver accessible tools and websites.

One looming challenge for government IT managers: how cloud-based solutions and services fit into the whole accessibility picture. Agencies will have to monitor not just their own processes and interfaces, but also those of their cloud providers, as well, to assure accessibility compliance.

**Leading the Way**

The Texas Department of Information Resources issued the first solicitation using PDAA resources in August 2014, for “Education IT Products and Services.” Minnesota is now in the process of launching a PDAA pilot program also, with a small number of vendors as partners.

On the Federal level, the U.S. Department of Justice is working on new rules for web site accessibility as required by the Americans with Disabilities Act. The rules are slated to be codified next year, Kline said.

By implementing PDAA in the procurement process, Texas officials are helping industry get ready for impending change. Law suits related to accessibility are on the upswing. By having a policy-driven framework that helps them more effectively build in accessibility requirements, vendors will be in a better position if these regulations get codified.

A policy-driven approach “is really what is going to drive more seriousness in accessibility and drive a lot more innovation and tools to make accessible IT more efficient,” Kline said.