2021
21ˢᵗ Century IDEA Report

Prepared for the Office of Management and Budget per the requirements of Section 3(d) of Public Law 115-336, "21ˢᵗ Century Integrated Digital Experience Act"

December 2021

Homeland Security

Executive Summary

The [21st Century Integrated Digital Experience Act](#) (21st Century IDEA) (P.L. 115-336) requires the heads of all federal executive branch agencies to report to the Director of the Office of Management and Budget on the agency's progress towards the modernization of new or redesigned websites and digital services.

The Department of Homeland Security (DHS) has made this modernization of its websites and digital services a high priority. DHS aims to provide our customers with an easy and efficient online experience and has taken multiple steps to further this goal and comply with the requirements of 21st Century IDEA.

Building on the work that was accomplished in 2020, DHS has focused on four main goals related to 21st Century IDEA in 2021:

- Website and Digital Service Modernization
- Digitization of Government Services and Forms
- Digital Service Delivery
- Standardization and Coordination

2021 DHS 21ˢᵗ Century IDEA Report

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I.   Legislative Language

This document has been compiled pursuant to the reporting requirements in the 21st Century Integrated Digital Experience Act (21st Century IDEA) (P.L. 115-336).

21st Century IDEA states in section 3(b)(2):

> (2) submit to Congress a report that includes—
>
>> (A) a list of the websites and digital services maintained by the executive agency that are most viewed or utilized by the public or are otherwise important for public engagement;
>>
>> (B) from among the websites and digital services listed under subparagraph (A), a prioritization of websites and digital services that require modernization to meet the requirements under subsection (a); and
>>
>> (C) an estimation of the cost and schedule of modernizing the websites and digital services prioritized under subparagraph (B).

21st Century IDEA states in section 3(d):

> (d) PUBLIC REPORTING.—Not later than 1 year after the date of enactment of this Act and every year thereafter for 4 years, the head of each executive agency shall—
>
> (1) report annually to the Director on the progress of the executive agency in implementing the requirements described in this section for the previous year; and
>
> (2) include the information described in paragraph (1) in a publicly available report that is required under another provision of law.

21st Century IDEA states in section 5:

> Not later than 180 days after the date of the enactment of this Act, the head of each executive agency shall submit to the Director and the appropriate congressional committees a plan to accelerate the use of electronic signatures standards established under the Electronic Signatures in Global and National Commerce Act (15 U.S.C. 7001 et seq.).

II. Background

The 21st Century Integrated Digital Experience Act (21st Century IDEA) (P.L. 115-336) requires the heads of all federal executive branch agencies to report annually (through 2023) to the Director of the Office of Management and Budget on the agency's progress towards the modernization of new or redesigned websites and digital services.

Sections 3(a) and 3(b) of the law define this modernization as requiring new or redesigned websites and digital services to:

- be accessible to individuals with disabilities in accordance with Section 508 of the Rehabilitation Act of 1973 (commonly called being "Section 508 compliant" or "Section 508 conformant");
- have a consistent appearance;
- not overlap with or duplicate another agency website;
- contain an easily usable search function;
- provide an industry standard secure connection;
- be designed based on user needs determined by data-driven analysis;
- provide the option of a more customized digital experience; and
- be fully functional and usable on common mobile devices (commonly called being "mobile responsive").

Section 3(e) requires that any website or digital service that is made available to the public after the date of enactment be in compliance with the website standards developed by the General Service Administration's (GSA's) Technology Transformation Services (TTS).

Section 3(b)(2) also requires a review of all existing agency websites or digital services and a prioritized list of websites or digital services to be modernized, along with a cost estimate for said modernization. This information was provided in the Department of Homeland Security's 2019 21st Century IDEA report and is available on DHS.gov.

In addition to the website and digital service modernization requirements found in Section 3, Section 4 requires the identification and digitization of paper-based or in-person Government services, along with a regular review of public-facing applications and services to ensure that they are made available to the public in a digital format to the greatest extent practicable.

Section 5 requires a plan to accelerate the use of electronic signatures and Section 6 requires the alignment and coordination of internal and external customer experience programs. Finally, Section 7 requires that, to the extent practicable, all of this is done with an eye towards standardization, commonality, and coordination with other executive agencies to best enable future transitions to centralized shared services.

The information below details the efforts of the U.S. Department of Homeland Security (DHS) to modernize the agency's websites and digital services in 2021.

III. Website and Digital Service Modernization

Building on 2020 efforts, DHS continued the process of modernizing high-priority DHS public websites per the requirements of 21st Century IDEA in 2021. A large portion of this was aligning the Website Standards developed by the General Service Administration's Technology Transformation Services (TTS) with the existing DHS website standards, and then providing guidance and ensuring that public DHS websites followed the U.S. Web Design System (USWDS) maturity model. Many public DHS websites were already in compliance with Level 1 of the USWDS maturity model (Integrate Design Principles) since they followed the existing DHS website standards.

Efforts then continued to focus on the implementation of Level 2 (Follow User Experience Guidance) of the maturity model, and since the Department was already on a development path to upgrade the content management systems for most Tier 1 DHS public websites, work was begun to incorporate design elements from the US Web Design System (USWDS) as part of the Drupal Technical Rebuild from Drupal 8 to 9.

A. Creating the "DHS" USWDS Theme and Design Site

Because the Drupal content management system (CMS) used by DHS was incompatible with the code provided by the USWDS team at GSA/TTS, DHS reached an agreement with GSA for the USWDS team to work directly with DHS developers to build a "DHS version" of the USWDS. Through this, DHS was able to use their development stack to customize the USWDS to meet DHS standards and specifications, then deploy a self-contained website template that could then be shared with all website development teams across the DHS enterprise. This design site was also made available as a distributable package for wide distribution across the Department and available in open source to other federal agencies and the public. The design site is also being continuously updated as USWDS releases new (and updates existing) components, allowing public-facing DHS websites and digital services to maintain a cohesive look and remain aligned with the USWDS and the rest of the US government.

B. Unified DHS Header and Footer

As a byproduct of this effort, and to help the transition for smaller websites, a new common USWDS-compliant header and footer for all DHS public websites and digital services was created along with implementation guidance. This common header and footer provide for a unified look across all DHS public websites and digital services, standardizes common links, and places the National Terrorism Advisory System widget on every page of a participating site. USCIS.gov, my.USCIS.gov, egov.USCIS.gov, and e-Verify.gov were the first to implement the common header and footer in 2021 and represented over 30% of the total traffic to all DHS public websites.

All in all, the following websites were launched or modernized/redeployed in 2021:

- https://www.niem.gov
  U.S. Department of Homeland Security Headquarters

- https://www.schoolsafety.gov
  U.S. Department of Homeland Security Headquarters
- https://www.oig.dhs.gov
  U.S. Department of Homeland Security Office of Inspector General
- https://niccs.cisa.gov
  Cybersecurity and Infrastructure Security Agency (CISA)
- https://www.cisa.gov*
  Cybersecurity and Infrastructure Security Agency (CISA)
- https://www.us-cert.gov
  Cybersecurity and Infrastructure Security Agency (CISA)
- https://recovery.fema.gov
  Federal Emergency Management Agency (FEMA)
- https://www.fema.gov*
  Federal Emergency Management Agency (FEMA)
- https://www.ready.gov*
  Federal Emergency Management Agency (FEMA)
- https://www.fleta.gov
  Federal Law Enforcement Training Association (FLETA)
- https://www.fletc.gov*
  Federal Law Enforcement Training Centers (FLETC)
- https://mobile.tsa.gov
  Transportation Security Administration (TSA)
- https://www.tsa.gov*
  Transportation Security Administration (TSA)
- https://www.e-verify.gov
  U.S. Citizenship and Immigration Services (USCIS)
- https://www.uscis.gov*
  U.S. Citizenship and Immigration Services (USCIS)
- https://www.biometrics.gov
  U.S. Customs and Border Protection (CBP)
- https://studyinthestates.dhs.gov
  U.S. Immigration and Customs Enforcement (ICE)
- https://www.ice.gov*
  U.S. Immigration and Customs Enforcement (ICE)
- https://careers.secretservice.gov
  U.S. Secret Service
- https://www.secretservice.gov*
  U.S. Secret Service

* Indicates a primary / Tier 1 DHS public website

C.   Accessibility

The 2015 DHS Public Web Strategic Plan required that all DHS public websites and digital
services must meet DHS Accessibility standards prior to launch to the public. These standards

are considerably more stringent than most other agencies as DHS continues to lead the US government in accessibility conformance. The DHS Accessibility standards also require Section 508 testing by a DHS Trusted Tester for every new or updated public-facing interface component prior to launch of a code update on a public website or digital service.

During 2021, DHS continued to work with Federal Chief Information Officers Council (CIOC) Accessibility Community of Practice (ACOP) to refine and expand standardized Section 508 conformance testing processes, including the recently updated Section 508 ICT Baseline for Web Accessibility Version 3.0.1.

DHS also continued to use a combination of manual and automated testing methods to monitor conformance to the Section 508 standards for websites and digital services. DHS also continued to refine the DHS Trusted Tester Conformance Test Process and provided training, examination, and Trusted Tester certification to promote consistent use.

IV. Digitization of Government Services and Forms

As required in Section 3(a) and 4(b), DHS and its components regularly review their public facing websites and digital services to ensure that those applications that include forms are made available to the public in digital format to the greatest extent practicable.

In 2021, U.S. Citizenship and Immigration Services (USCIS) spent considerable effort to transform existing paper (or basic PDF) forms into digital services:

- I-589 | Application for Asylum and for Withholding of Removal
  Form used to apply for asylum in the United States and for withholding of removal (formerly called "withholding of deportation"). The I-589 can also be filed concurrently with G-28, Notice of Entry of Appearance as Attorney or Accredited Representative.
- I-821 | Application for Temporary Protected Status
  Form used to apply for Temporary Protected Status (TPS).

In November 2021, U.S. Immigration and Customs Enforcement (ICE) also updated and streamlined the "ICE Tip Form" that's available to the public at https://www.ice.gov/webform/ice-tip-form.

In 2021, DHS began deploying public-facing Customer Relationship Management (CRM) software to accelerate the digitization of forms and also provide automated workflows within the department to speed processing. In 2021, two public-facing digital services were launched on two different CRM platforms:

- https://trip.dhs.gov
  Transportation Security Administration (TSA) – Salesforce
- https://www.together.gov
  U.S. Department of Homeland Security Headquarters – ServiceNow

In addition to providing input forms in a digital format, these digital services also employed the DHS version of the USWDS (as discussed in Section III of this document), allowing these sites to have a consistent and unified look with other DHS (and US government) sites using the USWDS.

V. Accelerating the Use of Electronic Signatures

The Department is in the process of developing full policies for electronic signatures. Considerations in development will include a range of technical solutions that will be matched with specific use cases balancing ease of use and non-repudiation. Prior to being finalized, these policies will be reviewed by the Chief Information Security Officers Council and CIO Leadership.

Certain capabilities to e-sign forms have been developed within the department during the digitization of paper forms and the improvements of web-based forms.

VI. Customer Experience and Digital Service Delivery

A. Identifying Customer Needs and Expectations

On DHS public websites and digital services, DHS currently uses a mix of qualitative and quantitative metrics to evaluate the customer satisfaction and identify customer needs/expectations of any given website or digital services. For public websites, site-wide and page-level survey tools are used to evaluate customer satisfaction over time, and quality assurance tools are used to ensure usability, readability, and information quality.

DHS also uses focused usability studies to evaluate customer needs and expectations on high impact/traffic websites and digital services. Beginning in 2016, DHS has partnered with Mercer University's School of Engineering, Department of Technical Communication to perform small audience, in-person usability studies on focused areas of DHS websites and digital services. In addition, programs often do their own user research and usability testing of products and services.

B. Digital Service Delivery and Shared Services

Established in 2012, DHS Web Content Management as-a-Service (WCMaaS) is a shared services platform which hosts 22 websites built on a FedRAMP-compliant cloud hosting platform.

The DHS Enterprise Content Delivery as-a-Service (ECDaaS), which leverages a content delivery network (CDN), provides website security and delivery services to the sites hosted on the WCMaaS platform and over 400 other DHS websites and digital services hosted outside the WCM hosting platform. 55 websites/digital services were integrated in 2021.

In 2021, DHS also began deploying public-facing Customer Relationship Management (CRM) software to accelerate the digitization of forms and provide automated workflows within the department to speed processing. DHS is currently using CRM solutions provided and centrally hosted by several companies.

VII.   Standardization and Coordination

DHS coordinates both internally (between DHS headquarters and operational components) and externally with other federal agencies to encourage standardization with an eye towards use of shared services.

A.   Internal Coordination

The DHS Public Web Council, established in 2011, coordinates department-wide policy and governance for all DHS public-facing websites and digital services. The Council is chaired by the Director of Web Communications in the DHS Office of Public Affairs and has both Public Affairs and Information Technology representation from all operational DHS components. The goals of the Council generally align with the goals of 21st Century IDEA, and are to:

- Unify and simplify web systems at DHS by consolidating component sites, integrating stove-piped programmatic sites, and eliminating duplicative sites.
- Identify and promote best practices for effective, customer-focused content management throughout the Department.
- Identify and research new technology and propose pilot tests to evaluate their possible adoption by the department.
- Provide a forum for web and digital managers to share skills, knowledge, best practices, ideas and solutions.
- Provide DHS leadership with an accurate accounting of the scope of all component public-facing websites and extranets and the technology and resources supporting them, along with financial and operational transparencies, including usage metrics.
- Provide DHS with a cross-component forum to address high-level web policy issues that affect all DHS components.
- Promote cross-agency collaboration through information and resource sharing.
- Communicate our successes and challenges with stakeholders, to bring greater recognition and support for our work and the DHS web community.

The DHS Director of Web Communications, working with DHS Public Web Council, sets the requirements and policy for DHS public websites and digital services (including those related to modernization and others found in 21st Century IDEA) and then uses the DHS Public Web Council to coordinate implementation across all public DHS websites and digital services – both at headquarters and DHS components.

B.   External Collaboration

DHS frequently consults, coordinates, and collaborates with other federal agencies to share best practices and establish as much standardization and commonality as possible in implementing the requirements of 21st Century IDEA.

At a staff and executive level, DHS participates in all Digital.gov Communities of Practice coordinated by GSA's Technology Transformation Services, including (but not limited to) the Web Content Managers Forum, Plain Language, Social Media, User Experience, Web Analytics, Open Data, and Artificial Intelligence.

The DHS Director of Web Communications has also been the co-chair of the Federal Web Council since 2016 and, in the absence of implementation guidance provided by OMB, has been instrumental in the government-wide coordination of 21st Century IDEA requirements. The DHS Director of Web Communications worked directly with GSA's Technology Transformation Services (TTS) to establish and maintain the website standards found on USWDS: The United States Web Design System as well as the checklist of requirements for federal websites and digital services found on Digital.gov, and then helped lead the government-wide implementation of these standards and requirements.

VIII.   Conclusion

Over the past three years, considerable progress has been made at DHS towards modernizing its websites and digital services. The DHS Enterprise Web Council, made up of representatives from the Office of Public Affairs and the Office of the Chief Information Officer for both headquarters and each DHS operational component, will continue to spearhead this effort.

Leveraging the latest technology and customer experience guidance, DHS will continue to execute the requirements of 21st Century IDEA for years to come to provide the public with an ever improving and exemplary digital experience.