OCIO Office of the DOT
Chief Information Officer

Section 508 Compliance: Ensuring Accessible Technology & Information

2016 Civil Rights Virtual Symposium

Maria Roat
Chief Technology Officer
March 2016

Section 508 of the Rehabilitation Act of 1973

All Electronic and Information Technology purchased, developed, maintained or used by the DOT must be accessible to individuals with disabilities – employees and members of the public

Advances in technology are equalizers for people with disabilities who are employees, job seekers, or users of DOT content

OCIO Office of the DOT
Chief Information Officer

2

By the Numbers

10
Section 508 Coordinators

315K
Internet pages

68K
Intranet pages

3.5M
Monthly/weekly web scans in a year

1.7K
Multi-media files evaluated

480
Electronic Documents Evaluated

78%
Internet web page compliance

100%
Procurement solicitations evaluated conformant

OCIO Office of the DOT Chief Information Officer

3
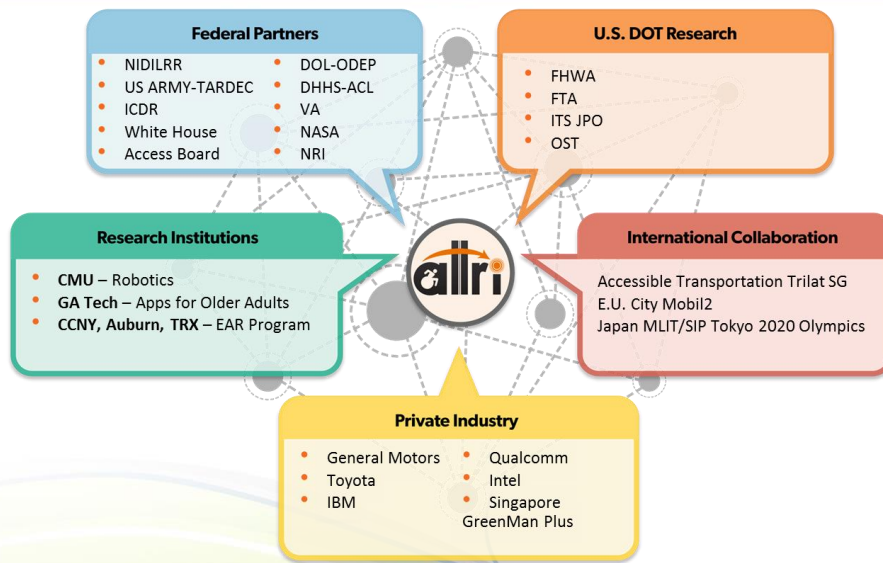
Leading Change & Innovation - *An Enterprise Approach*

- Leveraging the Cloud
  - Skype for Business
  - Video Remote Interpreting
- Supporting the Federal Community
  - FMCSA & FAA's Accessibility Tutorial Video's
- Training to be Trusted Testers
  - FHWA National Highway Institute
- Highlighting Technology
  - Mobile Learning Showcase
- Integrating Data
  - Open Data and Services

OCIO Office of the DOT Chief Information Officer

4

Accessible Transportation Technologies Research Initiative

- A U.S. DOT Multi-Year, Multimodal, Multi-Agency Research and Development Effort
- Identifying user needs of travelers with disabilities to develop new transformative applications to increase personal mobility
- Building collaborative research and deployment partnerships with other US and International research communities, both public and private
- Unique opportunity to develop and deploy novel applications for accessible transportation and extend those benefits to all travelers

OCIO Office of the DOT Chief Information Officer

5

Strong Partnerships

Federal Partners
- NIDILRR
- US ARMY-TARDEC
- ICDR
- White House
- Access Board
- DOL-ODEP
- DHHS-ACL
- VA
- NASA
- NRI

U.S. DOT Research
- FHWA
- FTA
- ITS JPO
- OST

Research Institutions
- **CMU** – Robotics
- **GA Tech** – Apps for Older Adults
- **CCNY, Auburn, TRX** – EAR Program

International Collaboration
Accessible Transportation Trilat SG
E.U. City Mobil2
Japan MLIT/SIP Tokyo 2020 Olympics

Private Industry
- General Motors
- Toyota
- IBM
- Qualcomm
- Intel
- Singapore GreenMan Plus

OCIO Office of the DOT Chief Information Officer

6

3

Challenges & Opportunities

76% people with disabilities say adequate transportation is important to their job search
29% consider it a significant problem in accessing jobs [1]

Targeted Populations	Persons with Disabilities	Veterans with Disabilities	Older Adults

Types of Disabilities	Vision	Mobility	Hearing	Cognitive

Enabling Technologies	ITS, Wireless & Sensors	Connected Vehicles	Automated Vehicles/ Personal Mobility	Robotics, Artificial Intelligence	Accessible Data

OCIO Office of the DOT Chief Information Officer

7

Technology Scan Recommendations for ATTRI

Wayfinding & Navigation Solutions
- Focus on integration of map data and standardized infrastructure descriptions from various sources
- New data unique and specific to ATTRI users should be developed

ITS & Assistive Technologies
- Focus on remote assistance for stakeholders and opportunities to inform and aid barrier traversal
- Modernizing assistive technology maintenance and asset management (area for advanced research)

Automation & Robotics
- Shared neighborhood autonomous vehicles which are cost effective and aid at traversing distances between transit stops, homes, and places of employment.
- Assist service models, electric vehicles, and autonomous vehicles create opportunities for novel accessible designs

Data Integration
- Reduce complexity and identify coordination in service matchmaking through open data and services
- Develop environment for community generated data
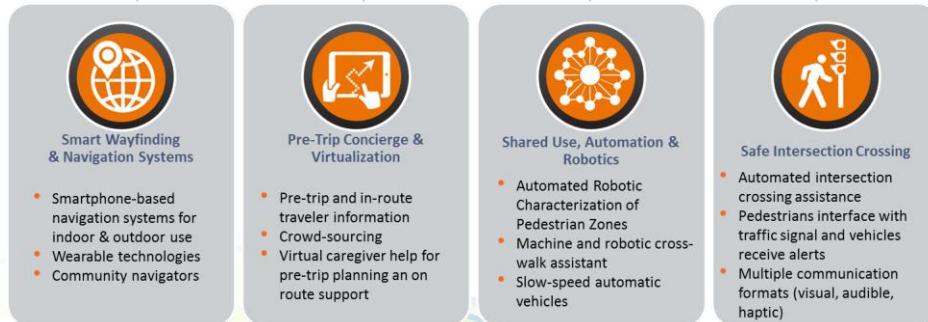
Enhanced Human Services Transportation
- Support initiatives by ridersharing services to involve ATTRI stakeholders and develop accessible versions of these services.
- Support mode shift through private on-demand ride services

Final Report Due: Spring 2016

OCIO Office of the DOT Chief Information Officer

8

4

Considerations

Foundational Considerations

Standard Accessible Data Platform	Universal Design Standards	Integrated Payment	Leverage Existing Technologies

Smart Wayfinding & Navigation Systems

- Smartphone-based navigation systems for indoor & outdoor use
- Wearable technologies
- Community navigators

Pre-Trip Concierge & Virtualization

- Pre-trip and in-route traveler information
- Crowd-sourcing
- Virtual caregiver help for pre-trip planning an on route support

Shared Use, Automation & Robotics

- Automated Robotic Characterization of Pedestrian Zones
- Machine and robotic cross-walk assistant
- Slow-speed automatic vehicles

Safe Intersection Crossing

- Automated intersection crossing assistance
- Pedestrians interface with traffic signal and vehicles receive alerts
- Multiple communication formats (visual, audible, haptic)

OCIO Office of the DOT Chief Information Officer

9

Thank you!

Maria Roat
Chief Technology Officer
DOT Section 508 Coordinator
maria.roat@dot.gov

OCIO Office of the DOT Chief Information Officer

10