



# Kansas' Accessible Broadband Plan

## **Crossroads to the Future**

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**FCC  
Background  
Information**

# Federal Communications Commission

- [www.fcc.gov](http://www.fcc.gov)
- [www.broadband.gov](http://www.broadband.gov)
- **FCC's Consumer & Governmental Affairs Bureau, Deputy Bureau Chief, Karen Peltz-Strauss**
- **Home to: Disability Rights Office (first Chief, Pam Gregory)**
- **Jamal Mazrui, A&I Initiative Deputy Director, WCB (Sharon Gillett's Bureau)**
- **Home to: Chairman Genachowski's Accessibility & Innovation Initiative, Director, Pam Gregory**



**Keep in Touch!**

# Federal Communications Commission

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**Your key to staying in the loop!**



## A&I Initiative

# Federal Communications Commission

- **Accessibility & Innovation Initiative**
- **What is it?**
- **[www.broadband.gov/accessibilityandinnovation](http://www.broadband.gov/accessibilityandinnovation)**



**Broadband:  
What Pam  
is Going to  
Talk About**

# Federal Communications Commission

- **FCC's National Broadband Plan (should have Executive Summary and book)**
- **White Paper on Access to Broadband for Persons with Disabilities (should have copy)**
- **Accessibility & Innovation Initiative**
- **Web 2.0 and Cloud Computing**
- **21<sup>st</sup> Century Communications and Video Programming Accessibility Act**



## **FCC's National Broadband Plan (NBP)**

# **The National Broadband Plan**

### **What does this mean for you?**

- **Few populations stand to benefit more than persons with disabilities**
- **Broadband can bridge gaps and provide opportunities that were once unconceivable**
- **Broadband allows people with disabilities to live independent lives in the communities of their choice**



## **FCC's National Broadband Plan (NBP)**

# **The National Broadband Plan**

### **What does this mean for you?**

- **Broadband can make governments more accessible**
- **Example: FCC meetings are broadcasted on internet, with open captions, with screen-reader compatibility, and people can ask questions and make comments remotely through E-mail**



# Crossroads 2.0



**Adoption  
rates by  
persons with  
disabilities**

**Currently, there are  
massive gaps in  
technology used by people  
with disabilities**

**More information from  
David Rosenthal**



## **FCC's National Broadband Plan (NBP)**

# **The National Broadband Plan**

### **Why you should care?**

- **Broadband = economic and democratic participation**
- **Broadband = VRS, IP Relay and ICT**
- **Broadband = captions on mobile devices**
- **Broadband = reliable paging, texting, and SMS systems**



## **FCC's National Broadband Plan (NBP)**

# The National Broadband Plan

### **Why you should care?**

- **Broadband = opportunity to design accessibility/universal design in the beginning stages of a technology (product)**

- **Test your speed:**

<http://www.broadband.gov/qualitytest/about/#qualitytest>



# The National Broadband Plan

## FCC's National Broadband Plan (NBP)

### Examples

- **iPhone: built-in screen reader and captioning capabilities**
- **Windows 7: many features (speech recognition, magnifying window, on-screen keyboard, and screen reader)**
- **AT&T and AOL provide real-time IM relay services**
- **Google captioning (still developing)**
- **Disney (ABC/ESPN) providing captioned programming via broadband**



## **FCC's National Broadband Plan (NBP)**

# **The National Broadband Plan**

## **Accessibility Plan in NBP**

- **Establish an Interagency Working Group**
- **Establish ongoing Accessibility & Innovation Initiative**
- **Make recommendations to FCC, US Congress on updating laws, regulations and policies, starting with the 21<sup>st</sup> Century Communications and Video Programming Accessibility Act**



## **FCC's National Broadband Plan (NBP)**

# **The National Broadband Plan**

### **Accessibility Plan in NBP**

- **Recommend that the USF provide up to \$10 million per year to spur accessible innovations**



## **FCC's National Broadband Plan (NBP)**

# **The National Broadband Plan**

## **Interagency Working Group**

- **Interdisciplinary Working Group to coordinate policies that promote broadband adoption by people with disabilities**
- **This Working Group will apply WCAG 2.0 and Section 508 policies to all of their activities**
- **This Working Group will evaluate existing policies, for examples, AAC devices are not currently covered by Medicare**



# The National Broadband Plan

## FCC's National Broadband Plan (NBP)

### Interagency Working Group

- **Working Group can examine assistive technology, cloud computing, and emerging technologies to test for accessibility and availability**



## **FCC's National Broadband Plan (NBP)**

# **The National Broadband Plan**

## **Accessibility & Innovation Initiative**

- **Promotes the use of collaborative problem solving processes among stakeholders**
- **Allows industry, consumers, academics, researchers, students, AT vendors, 3<sup>rd</sup> party application developers to share best practices and new innovations, based on consumers' needs**





## **FCC's National Broadband Plan (NBP)**

# **The National Broadband Plan**

## **Accessibility & Innovation Initiative**

- **Will hold regular workshops in DC and in field**
- **Possible topics: cognitive disability access, industry best practices, cloud computing, wireless devices and applications, assistive technology and digital literacy**
- **Present Chairman's Annual Award for Advancements in Accessibility**





## **FCC's National Broadband Plan (NBP)**

# **The National Broadband Plan**

## **Update Access Laws and Policies**

- **21<sup>st</sup> Century Communications and Video Programming Accessibility Act**
- **Update Section 255 & Hearing Aid Compatibility (HAC) rules**
- **Open proceeding on technical aspects of captioning and video description of programming on internet, and devices used to display and watch the programming**
- **Recommend to DOJ that the ADA applies to websites**



## **FCC's National Broadband Plan (NBP)**

# **The National Broadband Plan**

## **Universal Service Fund (USF) to Spur Innovation**

- **Request Congressional authority**
- **Competitively-based funding**
- **Spur the development of accessibility & innovation through developers of components, software applications, communications devices, and assistive technology**



**Where we've  
been and  
where we  
are!**

# Crossroads to the Future

- **Many Accessibility Laws in the Past:**
- **Smith-Fess Act of 1920**
- **Vocational Rehabilitation Act Amendments of 1954**
- **Architectural Barriers Act of 1968**
- **Rehabilitation Act of 1973**
- **Telecommunications Act for the Disabled 1982**
- **Hearing Aid Compatibility Act of 1983**
- **Voting Accessibility for the Elderly and Handicapped Act of 1984**





**Where we've  
been and  
where we  
are!**

# Crossroads to the Future

- **Many Accessibility Laws in the Past (continued):**
- **Air Carrier Access Act of 1986**
- **Fair Housing Act Amendments of 1988**
- **Television Decoder Circuitry Act of 1990**
- **Americans with Disabilities Act of 1990**
- **National Voter Registration Act of 1993**
- **Individuals with Disabilities Education Act of 1994**
- **Rehabilitation Act Amendments of 1998**
- **Telecommunications Act of 1996**
- **Civil Rights of Institutionalized Persons Act of 1997**





**Here & Now**

# Our Nation at a Crossroad

- **Today's environment is more than the bricks and mortar**
- **Many of the past laws are irrelevant in today's society**
- **Apply the principles and spirit to new environments: networks, WWW, LANS and WANS, software, Internet, broadband, capacity and speed, for example**
- **21<sup>st</sup> Century Communications and Video Programming Accessibility Act**



# The Crossroads





# Crossroads to the Future

What's the story  
with Kansas?





# Kansas at a Crossroad

- **How do you ensure to incorporate accessibility so that all Kansans can benefit from its Broadband Plan?**





**No Brainer!**

# Kansas at a Crossroad

- ***When You Publish***
- **Strongly recommend that the WCAG 2.0 (Web Content Accessibility Guidelines) are used (released December 2009)**
- **In addition to WCAG 2.0, consider publishing it in a .pdf and .brl electronic versions as well**
- **Ensure your website is in compliance with WCAG 2.0 guidelines**
- **Don't forget cognitive disabilities—what is good for them is good for all**
- **Recommend plain English**
- **Add visual elements so it is not all text**





**Nothing  
about us  
without us!**

# Kansas at a Crossroad

- **Must have participation by persons with disabilities**
- **People with disabilities have a civil right to be at the table**
- **Solicit comments, participation, and engagement through a systematic outreach campaign**
- **Partner with Kansas' disability organizations, academics who study disability, the assistive technology industry, and state disability organizations**





**Talk to me!**

# Kansas at a Crossroad

- **Solicit comments – and make process user friendly**
- **Allow and encourage comment through video, email, electronic posting, blogs and tweets**
- **Consider less formal processes to increase participation**
- **Talk to *and* listen to your stakeholders and constituents**





# Kansas at a Crossroad

## The Hill & the FCC

- **Track implementation**
- **21<sup>st</sup> Century Communications and Video Programming Accessibility Act**





**We can do it!**

# Kansas at a Crossroad

- **Hold public hearings**
- **Make sure all meetings are accessible**
- **Know your audience—recommend voluntary RSVP to know whether sign language interpreters, computer assisted real-time (CART), assistive listening devices, large print, braille, MP3, or other electronic versions are needed.**
- **Make sure your site is wheelchair accessible**
- **Other considerations**



**Say what?**

# Kansas at a Crossroad

- **Solicit comments from experts**
- **Identify key players and ask them in for a meeting**
- **Contact national organizations who have filed comments on broadband with the FCC and have them file in Kansas**
- **Keep all planners involved and informed**
- **Issue Challenges**



# Kansas at a Crossroad



Have you heard?

## FCC A&I Initiative Challenges

- **Spread the word about FCC Challenges to:**
- **Software developers (for apps that can provide solutions)**
- **Persons with disabilities (for problems)**
- **Chairman's Award for Accessibility**





## Challenges

# A & I Initiative Challenges

- **July 19, 2010. Two challenges launched challenges with the FCC, White House, and Department of Commerce. How to make the web more accessible and way-finding for persons who are blind**
  - 1) Gallery of accessible web widgets and templates. Working Group established.
  - 2) Geolocation data of a city for blind pedestrians. Working Group established.
- **July 24, 2010. FCC and Disability Power & Pride launched a challenge on a clearinghouse on accessible wireless phones. CTIA formed an Accessibility Advisory Committee to revamp [www.accesswireless.org](http://www.accesswireless.org)**



# More Challenges

## More Challenges

- **October 22, 2010.** FCC, the Coleman Institute and Raising the Floor launched a challenge on [www.challenge.gov](http://www.challenge.gov) asking for visionary 3-5 minute videos/multimedia presentations on how cloud computing can empower persons with disabilities. <http://challenge.gov/FCC/82-lifted-by-the-cloud-visions-of-cloud-enhanced-accessibility>
- **November 8, 2010.** FCC with Yahoo! will host a Yahoo! Hackers Day challenging programmers to develop accessible apps for the FCC web or network.

# Kansas at a Crossroad



**Did we do it?**

- **How will Kansas measure the success of an accessible Broadband Plan?**
- **The job is never complete! Moving Target!**
- **Measure penetration rates into homes of persons with disabilities.**
- **Measure adoption rates by persons with disabilities.**
- **Ensure that broadband services, network and equipment are accessible to persons with disabilities.**
- **Use the cloud where practical.**





# Crossroads 2.0



**The Future**



# Crossroads 2.0



## Infrastructure 2.0

- **Infrastructure 2.0**
- **Have accessibility built-in to infrastructure**
- **Include networks, services, equipment, software, publishing tools**
- **Accessibility can not be a second thought, or it will not happen**



# Crossroads 2.0

## Risks of Exclusion:

**Real comments  
and  
conceptions**

**"I'm sorry, people like you are not allowed in your store"**

**"We don't sell to people with disabilities"**

**"People with disabilities have no need for social networks, and have no news to report"**

**END OF  
FREEWAY**

**"You can't renew your driver's license online because you're handicapped"**

# Crossroads 2.0



More comments  
and  
conceptions...

**"It would probably take a while, but we might include real-time text in a later version. Thanks for your feedback"**

**"I realize our computer system doesn't meet your needs, but you can not apply for a job with this company unless you do so on our website"**

**"Yes, it's true, on-line plane reservations are cheaper than using a voice agent, but I don't have a code to give you the cheaper rate just because you say you can't use our website"**

**END OF  
FREEWAY**



# Crossroads 2.0

## ADA 2.0

- **The current collection of disability-related collection of laws and regulations will be updated to Web 2.0**
- **Includes Section 508, Section 255, the DOJ's application of Titles II and III the ADA to the internet**
- **These updates will have deep ramifications locally and internationally**
- **21<sup>st</sup> Century Communications and Video Programming Accessibility Act**
- **Creation of ADA 2.0**



Signed October 8<sup>th</sup>, 2010

**21<sup>st</sup> Century  
Communications  
and Video Accessibility  
Act  
of 2010**



**ADA 2.0**

# 21<sup>st</sup> Century Act Summary

- **Amends the Communications Act**
- **Imposes new obligations on equipment manufacturers, service providers, and the Commission that relate to providing access to persons with disabilities**



# Section 101

- **Defines “advanced communications services” as:**
  - Interconnected VoIP service
  - Non-interconnected VoIP service
  - electronic messaging service
  - Interoperable video conferencing service



# Section 102

- **Section 102 requires that all CPE must provide an internal means for HAC**
  - Includes all essential phones
  - Includes CPE used with advanced communications services
  - Eliminates the exemption for cordless phones



# Section 103(b)

- **Amends Title VII of the Communications Act**
- **Adds §715**
- **Within 1 year of the Act, each provider of VoIP service (interconnected and non-interconnected) shall contribute to the TRS Fund.**



## Section 104, slide II

- **Amends section 503(b)(2) of the Communications Act provides that a violator of section 255, 716, or 718 liable for a forfeiture penalty not more than \$100,000 per violation or each day of a continuing violation, with a cap of \$1,000,000 for any single act or failure to act.**



# § 716: What's Covered

- **Within one year of the Act, the FCC shall promulgate rules providing that advanced communications services and the equipment and networks used to provide such services may not impair/impede accessibility of information content when accessibility has been incorporated into that content for transmission in connection with advanced communications services.**
- **§716(a) advanced communications services accessible & usable, unless not achievable**
- **§716 (b) achievable = with reasonable effort or expense**
- **§716 (a)(2) & (b)(2) if compliance (accessibility) is not achievable, must be compatible if achievable**



# §716: What's Covered, slide II

- **§716(c) advanced communications service providers can not install network features/functions that impede accessibility**
- **§716(e) equipment for advanced communications services accessible & usable**
- **Also-the FCC may waive requirements for section 716 for equipment not primarily used for advanced communications**
- **§716(e) does not require “to make every feature or function of every device or service accessible for every disability”**
- **§716(g) manufacturers may rely on 3th party software or CPE available at a nominal cost**
- **§716(h)(1) the FCC may exempt small entities**
- **§716(h)(2) requirements of §716 does not apply to services/equipment covered under section 255**



# §717: Record-keeping & Reporting

- **§717(a)(1) required entities covered by section 255, 716 and 718 to keep records of accessibility activities**
- **§717(a)(5) requires the FCC to submit a report to Congress every 2 years on compliance, the Commission's enforcement efforts, and identify barriers that may still exist**

# §718: Internet Browsers

- **Manufacturers or service providers of internet browsers on mobile phones, must ensure that the browser is accessible/usable to persons who are blind or have a visual impairment, when readily achievable**
- **§ 718(a) manufacture/service provider may comply by making product accessible, compatible, or may rely on 3<sup>rd</sup> party apps, peripheral devices, software, hardware, CPE available at a nominal cost**
- **§718(a)(2) requirements take place 3 years after enactment of Act**
- **§718(b) manufacturers/service providers not required to make Internet content, apps, or services accessible/usable**





# §105: Deaf-Blind Equipment Distribution Program

- **Within 6 months of enactment, the FCC promulgate rules to establish, for persons who are low income deaf-blind, a program that distributes SCPE for telecommunication service, Internet access service, and advanced communications services.**
- **Total support \$10,000,000 annually**



# §106: EAAC

- **Requires FCC Chairman, within 60 after enactment, to establish Emergency Access Advisory Committee (EAAC).**
- **Purpose: Achieve equal access to emergency services for people with disabilities**
- **Within 1 year, EAAC must conduct a national survey with people with disabilities to determine most effective and efficient technologies and methods to enable access**
- **EAAC must submit to the FCC recommendations to implement technologies and methods**
- **FACA does not apply to EAAC**
- **FCC may promulgate rules based on EAAC's recommendations where achievable and technically feasible**



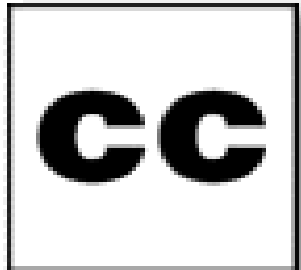
# EAAC Summary

- **Emergency Access Advisory Committee**
- **Form in December 2010**
- **Conduct a national survey by December 2011**
  - ❖ Identify effective and efficient technologies to enable access
  - ❖ Report findings to FCC
- **Report to the FCC by May 2012**
  - ❖ Video description and emergency information
- **Not a FACA**



# Section 201: VPEAAC

- **Requires the Chairman, within 60 days of enactment, to establish a Video Programming and Emergency Access Advisory Committee**
- **Within 6 months, the VPEAAC must submit a report to the FCC**
- **Recommends deadlines for the provisions of closed captioning service**
- **Identifies technical capabilities needed to permit content providers, ISPs, device manufacturers and others to provide closed captioning (consumer generated media exempted)**
- **Recommend any regulations necessary to ensure compatibility between video programming delivered using IP and devices capable of displaying programming**





# Section 201: VPEAAC, slide II

- **Within 18 after enactment, VPEAAC must submit a report to the FCC concerning the provision of video description and emergency information.**



THANK YOU TO GALLAUDET UNIVERSITY FOR YOUR WONDERFUL



# VPEAAC Summary

- **Video Programming and Emergency Access Advisory Committee**
- **Form in December 2010**
- **Report to the FCC by June 2011**
  - ❖ Identify technical capabilities needed to provide closed captioning on Internet
  - ❖ Recommend regulations, if any
- **Report to the FCC by April 2012**
  - ❖ Video description and emergency information
- **Not a FACA**



# Section 202: Video Description

- **Have rulemaking procedure**
- **Reinstate FCC video description rules within 1 year of enactment**
- **Within 1 year of phase-in of video description rules, open a proceeding on video description of the Internet**
- **At least 2 years after the opening proceeding, FCC can not issue additional rules/obligations unless the benefits are greater than the technical and economic costs**



# Video Description, slide II

- **After completion of proceedings, and by October 2016, the FCC will expand video description requirements to top 60 designated market areas (but may grant waivers)**
- **By 2019, FCC must report to Congress the costs and benefits of expanding video description to beyond the top 60 designated markets**
- **By 2020, the FCC, based on its reports to Congress, may expand video description by 10 markets per year**





**Keep in touch!**

# Federal Communications Commission

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**Keep Informed**

# Federal Communications Commission

- **Blog Posts**
- [www.broadband.gov/accessibilityandinnovation/](http://www.broadband.gov/accessibilityandinnovation/)
- **Top right tab "Blogs"**
- **5<sup>th</sup> Category: "Disability Access"**

# Crossroads 2.0



## Web 2.0

- **“Web 2.0”**
- **Represents the new web, today’s web**
- **Includes Social Media and Networking**
- **Use applications that require more broadband**
- **More applications based on a remote server**
- **This is not your web of five years ago!**





## **Web 2.0**

# **Crossroads 2.0**

- **Websites are much more dynamic in nature and act more like desktop application**
- **Enabled by broadband, the web is like using desktop**
- **Processing is happening in the cloud**
- **More interactive, more visual**
- **Access is more challenging**



# Crossroads 2.0

## Web 1.0 vs 2.0

- **Web 1.0 provided static in information**
- **Generally user generated content**
- **Example: write a review**
- **Web 2.0 is much more dynamic**
- **Example: write an review, comment on review, comment on comments, cross-post to Facebook and Twitter**
- **More interconnectivity between websites and services**
- **More of a world wide web!**



# Crossroads 2.0

## Web 2.0

- **Faster broadband connections are required for many Web 2.0 programs**
- **Examples: Geo-data like Google Maps, Google Earth, and Second Life**
- **Much of content is being developed by people who have no concept of accessible or universal design**
- **Need to see more accessibility in authoring tools**

# Crossroads 2.0



**Where's the web-server?**

•The web server doesn't even have to be at our facility. It can be outsourced, to a 3<sup>rd</sup> party like Amazon.com . As an example, Amazon.com offers the management of maintenance of the web-server. We don't know the host server—we don't have to. It doesn't matter. If the traffic gets near capacity, they can just clone the server and have another server take over



# Crossroads 2.0



## Software as a Service

**Conceptualize software as a service**

**Old days, we would buy software, install it, use it, and maybe upgrade it**

**Software as a service allows for metered-base usage prices**



# Crossroads 2.0

## Cloud Computing




- Tech support, from a source like *getsatisfaction.com*, instead of a company developing FAQs for tech support
- Option for outsourcing a specialized creative environment for tech support—again a monthly financial arrangement
- Expertise structure environment makes it highly productive
- It's not just outsourcing, it's far-outsourcing!

**Far Out!**





[www.NPIL.org](http://www.NPIL.org)

- **Building Accessibility and Extended Usability Directly Into the Internet's Infrastructure**
  - **Combining Cloud Computing, Web, and Platform Services to Make Access...**
    - Simpler
    - More Inclusive
    - Available Everywhere
    - More Affordable
      - for Consumers
      - for ICT and AT companies
      - for Public Access Points
      - for Governments
- 
- 
- 

# Crossroads 2.0



## Auto-personalization

- **Auto-personalization combined with cloud computing is mind-boggling!**
- **Cloud provided accommodation via auto-personalization:**
  - **Electronic braille**
  - **Closed captioning**
  - **Video Description**
  - **High contrast screen**
  - **Language/Plain English**
  - **Text-to-speech**
  - **Speech-to-text**
  - **Reminders to self**

# Crossroads 2.0



## Cloud Computing

### Cloud Computing

**NIST defines Cloud Computing as: *the term "cloud" is used as a metaphor for the Internet, based on the cloud drawing used in the past to represent the telephone network, and later to depict the Internet in computer network diagrams as an abstraction of the underlying infrastructure it represents.***

