



**CONNECTED  
NATION®**

# COMMENTS ON E-RATE REFORM

**MARCH 20, 2014**

**WC DOCKET NO. 13-184**



ACCESS



ADOPTION



USE



# AGENDA

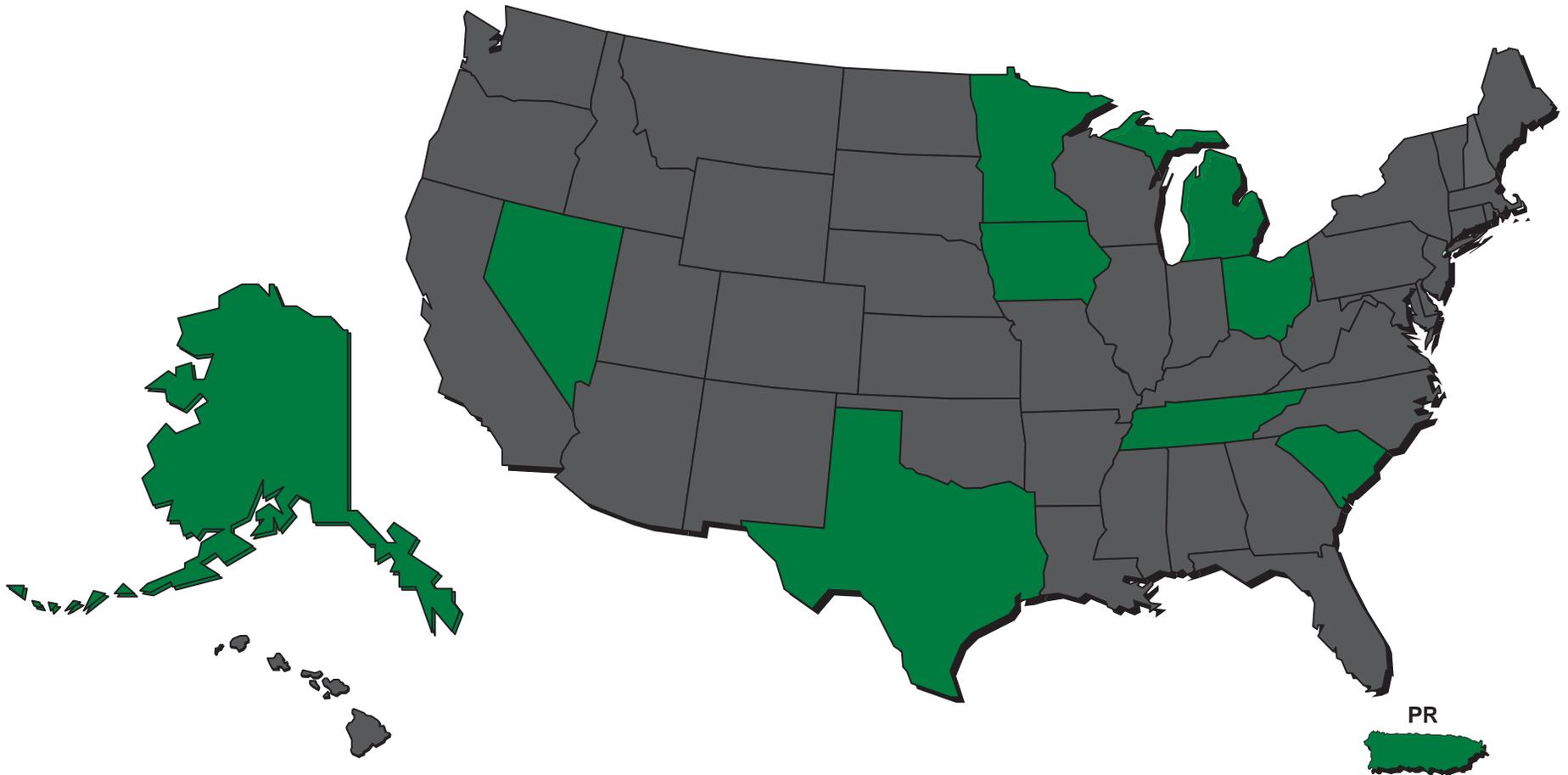
- **About Connected Nation**
- **A generational opportunity to get E-rate right**
- **Scope of the challenge – school and library connectivity collected by CN**
- **Connected Nation’s Proposals**
  - Prioritize high-speed broadband
  - Off-campus access
  - Incentivize comprehensive community technology planning
  - Comprehensive review to release E-rate data already collected and develop better E-rate data tools



# CONNECTED NATION

- **Non-for-profit working with federal, state and local stakeholders to help bridge the digital divide. Our goals are to promote...**
  - Ubiquitous *access* to high-speed broadband
  - Universal *adoption* of the technology by all segments of society
  - Widespread *use* of the technology across key societal functions – education, healthcare, government, etc.
- **Partner with federal and state governments and private stakeholders to**
  - Collect and validate tactical data to inform public policy - largest supplier of data to the National Broadband Map
  - Develop state and local strategic broadband plans and policies
  - Mobilize community champions across local, rural communities with knowledge of their broadband landscape and opportunities for expansion of access, adoption and use
  - Facilitate solutions to better leverage digital opportunities across schools, libraries and beyond

# CONNECTED NATION NTIA GRANT PROGRAMS





# A GENERATIONAL OPPORTUNITY

## ■ What We Know

- K-12 education is undergoing a foundational transformation driven by information technology and resulting in 1:1 learning models
- Educators, technologists, educational content developers, device manufacturers and broadband providers are testing models of how technology can enhance –or detract - from the learning experience
- Education and Digital Skills are an ongoing and lifelong need
- Applications and services are increasingly IP-based and will increasingly depend on broadband in the school, in the classroom, and off campus

## ■ What We Don't Know

- Best practices on which technology will best support educators is yet to be determined, because innovation is ongoing and messy
- Today's landscape of broadband access to schools and libraries and the size and scope of the challenge ahead
- How much it will cost



## A GENERATIONAL OPPORTUNITY

The FCC should take a ‘long view’ and determine how E-rate can best support this transformational process

- Prioritizing high-speed broadband connections to and within the premise is **necessary** but not **sufficient**
- E-rate must also accommodate other technology needs of educators and librarians, in particular mobile broadband connectivity to educator and student devices off-campus – particularly in areas with vulnerable populations
- Short-term budgetary considerations should not cripple E-rate’s ability to effectively support this transformative process
- E-rate also should **encourage** and **incentivize** cost-saving and welfare-enhancing actions by applicants – such as community technology planning

# SCOPE OF CHALLENGE

ESTIMATED PERCENTAGE OF INSTITUTIONS WITH DOWNLOAD SPEEDS OF 100 MBPS OR GREATER		
	Schools	Libraries
Alaska	11%	<1%
Iowa	7%	2%
Michigan	38%	3%
Minnesota	1%	<1%
Nevada	54%	<1%
Ohio	66%	1%
Puerto Rico	<1%	<1%
South Carolina	47%	7%
Tennessee	37%	1%
Texas	23%	10%
All 10 Jurisdictions	34%	3%

Source: Examining School and Library Broadband Connectivity: A Connected Nation Policy Brief  
[http://www.connectednation.org/sites/default/files/bb\\_pp/connected\\_assessment\\_policy\\_brief\\_final.pdf](http://www.connectednation.org/sites/default/files/bb_pp/connected_assessment_policy_brief_final.pdf)

## ESTIMATED PERCENTAGE OF INSTITUTIONS WITH DOWNLOAD SPEEDS OF 100 MBPS OR GREATER

	Schools		Libraries	
	Rural	Non-Rural	Rural	Non-Rural
<b>Alaska</b>	5%	45%	<1%	<1%
<b>Iowa</b>	4%	13%	1%	2%
<b>Michigan</b>	37%	42%	3%	4%
<b>Minnesota</b>	1%	<1%	<1%	<1%
<b>Nevada</b>	12%	70%	<1%	<1%
<b>Ohio</b>	62%	71%	<1%	3%
<b>Puerto Rico</b>	<1%	<1%	<1%	<1%
<b>South Carolina</b>	46%	50%	5%	10%
<b>Tennessee</b>	29%	45%	<1%	1%
<b>Texas</b>	8%	61%	6%	12%
<b>All 10 Jurisdictions</b>	23%	53%	2%	4%

## ESTIMATED PERCENTAGE OF INSTITUTIONS WITH DOWNLOAD SPEEDS OF 100 MBPS OR GREATER BY COUNTY-LEVEL MEDIAN HOUSEHOLD INCOMES

County-Level Median Household Income	Schools		Libraries	
	Rural	Non-Rural	Rural	Non-Rural
Less than \$15,000	<1%	<1%	<1%	<1%
\$15,000 - \$24,999	3%	<1%	<1%	<1%
\$25,000 - \$34,999	26%	16%	1%	<1%
\$35,000 - \$49,999	26%	62%	2%	4%
\$50,000 or more	28%	57%	2%	5%
Average	23%	53%	2%	4%



## 1. HIGH-SPEED BROADBAND PRIORITIES

E-rate should prioritize funding of applications in this order:

- High-Speed Broadband to the school and library premise
  - Priority funding to areas without robust fiber
  - Leverage and complement CAF, Mobility Fund, FirstNet, RUS, etc.
  - Provide incentives (priority or additional discount) to applications that are part of a comprehensive community technology plan
- Broadband throughout the school and library premise
- Mobile broadband connectivity to student learning devices on and off campus to ensure **all students** can access educational content whenever and wherever they need it

*We cannot let the broadband adoption gap become an education achievement gap!*



## OFF-CAMPUS CONNECTIVITY OF STUDENT DEVICES

- **Anywhere/anytime connectivity of student devices is a key component of successful models of 1:1 learning. Yet...educators implementing these models are faced with disparate realities:**
  - In schools that serve low-income and rural communities, educators confront daily the lack of at-home connectivity across significant (30%, 50% or more) portions of their student population
  - Where schools and educators cannot find solutions to off campus connectivity, they will of necessity curtail reliance on new technology – while schools in wealthy districts can proceed with aggressive 1:1 programs
  - Result: **Broadband Adoption Gap** transforms into a persistent **Education Achievement Gap**
- **This gap will not be solved solely by better connectivity at schools and on-campus** – indeed, the gap will put the brakes on 1:1 and high-speed broadband deployment in low-income school districts
- **E-rate can and should bridge this gap by including off-campus student device connectivity as an eligible service in communities that face substantial broadband adoption gaps**



## OFF-CAMPUS MOBILE ACCESS DEMONSTRATION PROJECT

- **Uniquely Suited to Experiment with Local, Regional, or National Bulk Purchasing Approaches**
  - Well-defined pre-paid and wholesale market for wireless broadband data services
  - Can also benefit libraries for remote and mobile library services
- **Bridging the off-campus divide for all students will remove a key barrier to robust EdTech deployment today – which, by expanding the market, will result in a more effective and efficient E-rate program overall**
- **Testing Key Assumptions**
  - How much will it really cost?
  - How much will it affect educational outcomes for vulnerable populations?
  - How much will pre-paid mobile plans, purchased on bulk basis, drive cost below retail? What is best method to achieve those savings?
  - Can access to E-rate for off-campus access be targeted or measured towards the target population?
  - What discount rate will still incent schools to include off-campus access in their technology plans?
  - What is the opportunity cost of not including off-campus student device connectivity where needed?
  - What combination of software and network management best ensures CIPA compliance while off-campus?



## 2. INCENT COMMUNITY TECHNOLOGY PLANNING

- E-rate should incent or prioritize applications for high-speed broadband when the applicant demonstrates that the broadband upgrade is part of a larger community plan that includes –
  - Coordinated demand
  - Cost-cutting infrastructure actions, and
  - Community-wide adoption and digital literacy training initiatives
- Comprehensive community technology planning will help ensure that E-rate funds are spent efficiently and effectively
- Proper planning will avoid duplication of costly effort (“Digging Twice”)
- Incentive mechanism can be additional discount or “fast track” processing



### 3. FCC SHOULD LEAD A COMPREHENSIVE REVIEW OF E-RATE DATA COLLECTION AND RELEASE

- **The FCC and USAC should regularly release data on –**
  - Funding levels by type of services
    - Based on a revised taxonomy of type of services that is meaningful to library and education technology experts, and relevant to local, state, and federal policy makers and stakeholders, not regulatory definitions
  - Information on service levels supported by E-rate
    - Broadband capacity per student wireless capacity per supported device and other quality of service measures
  - Applicant technology choices and prices supported via E-rate
- **Information should be available by beneficiary – not just applicant**
- **Data should be accessible via multiple formats useful to policy researchers, E-rate stakeholders and – importantly – the general public**
  - Including downloadable databases and GIS data visualization databases that offer easy-to-use access to information on E-rate subsidies by beneficiary (not just applicants)



## THE FCC SHOULD LEAD A COMPREHENSIVE REVIEW AND REFORM OF E-RATE DATA

- **“Better Data” does not mean “Greater Burden” for applicants**
  - USAC has much of these data today, but it not be in a format that enables easy data analysis
  - The review should examine existing processes, search for solutions to better mine existing data, and consider ways in which data inputs from applicants should be reformed by adding as well as eliminating data inputs from applicants
- **Data transparency will incent better technology choices and cost savings – especially if applicants can more readily understand costs and services being bought by their peers**
- **To achieve this comprehensive review of data collected and released by USAC, the FCC should work closely with USAC and leverage the technical expertise of private stakeholders**



ACCESS



ADOPTION



USE

**Thank you**

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