Rural Broadband Funding and Technical Assistance: Resources You Can Use

IACC
Wenatchee
October 23, 2018

Microsoft

Digital inclusion in rural America

IACC Conference
October 23, 2018

Microsoft Mission

"Empower every person and every organization on the planet to achieve more." - Satya Nadella

Microsoft Digital Inclusion Initiatives

- Airband - TVWS (Television Whitespaces)

- TechSpark - Digital Incentives and Shared Learning

- Datacenter Community Development (DCCD) - support and investments in communities where Microsoft operates datacenter infrastructure

Microsoft Airband Initiative Overview

Mission

In partnership with Internet access providers, energy access providers and other local entrepreneurs, deploy technologies and business models that reduce the cost of access, grow the overall market, and help billions more customers affordably get online.

Objectives	Areas of Focus	How
Develop a pipeline of new partnerships and projects to **incubate new approaches** Commercialize, grow, and **scale existing engagements** Develop **affordable Internet** access, **energy access**, and other enabling ecosystems	**Internet Access** **Energy Access**	**Commercial Partnerships** ▪ Rural America ▪ International ▪ Hardware innovation **Grant Fund** ▪ Annual grant awards **Focus on Key Enabling Verticals** ▪ Education ▪ Healthcare ▪ Agriculture ▪ Small business

Airband USA

Challenge:

• 19.4 million people in rural America lack access to broadband – 31%

Goal:

• Land projects in rural unserved areas

• Invest in projects, partnerships, and programs to **cover 2 million unserved people** in rural America by July 4, 2022

• Close rural America's digital divide

Microsoft Commitments:

• Co-investment in broadband deployments

• Digital skills for all ages

• Royalty-free access to TVWS patents and source code

Policy-Related Needs:

• Sufficient TV white spaces nationwide; maximize access to TV white spaces in rural areas.

• Public sector funds-matching grants and loans for network operators

• Improved rural broadband data

TV White Spaces: one tool in the Connectivity Toolkit

What is TV white space?

- Unused spectrum such as traditional UHF and VHF broadcast spectrum
- Regulators allow wireless access devices to transmit on these unoccupied channels as long as they do not interfere with TV broadcasters and other licensed users.

How does it work?

- Network operators can cost-effectively deploy wireless networks that deliver fast, reliable, and affordable Internet access in rural and underserved communities
- Leverage schools, libraries, or other anchor institutions with high-capacity connections to extend broadband solutions
- TVWS signals can travel over long distances, and penetrate natural and man-made obstacles to cover entire rural communities
- TVWS signals penetrate through more walls and obstacles, enabling whole home media distribution

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Microsoft TechSpark Initiative Overview

Mission

In partnership with local communities and educators, foster greater economic opportunity and job creation through advancing digital incentives and shared learning.

Objectives

Understand local digital challenges and implement initiatives to help accelerate growth

Focus resources to learn, contribute, and share resources across communities

Develop digital learning to help close the technology jobs gap with a focus on rural communities:
Washington, North Dakota, Texas, Virginia, Wisconsin, & Wyoming

Areas of Focus

1. Digital Transformation

2. Digital Skill and Computer Science Education

3. Career Pathways

4. Support for Non-Profits

5. Rural Broadband
   - partner with Airband and DCCD

How

Work with businesses to develop their own digital technology advances and foster business growth

Provide cash grants, technology curriculum and resources to non-profits and partner with schools to strengthen their ability to offer digital skills and computer science education.

Partner with high schools, community colleges, and other institutions to expand learning opportunities for students of all ages in order to acquire skills required to connect with jobs that require less than a traditional four-year college degree
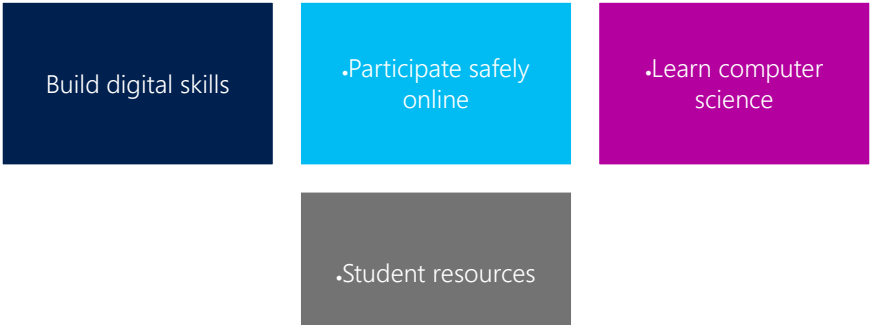
Financial and technology support for non-profit groups in each region

TechSpark: TEALS

Technology Education and Literacy in Schools https://www.tealsk12.org/

Helps High Schools build and grow sustainable computer science programs through partnerships between classroom teachers and tech industry volunteers

- Quincy, WA was one of the first schools to participate
- Supported by Microsoft Philanthropies

Build digital skills	•Participate safely online	•Learn computer science
	•Student resources	

From basic digital literacy to advanced computer science, digital skills are often out of reach for the people who need them most.

Datacenter Community Development (DCCD)

Mission
In partnership with local communities, educators, governments, and cooperatives to understand community needs and match those to Microsoft programs and resources that advance social opportunity, enhance economic growth, and support environmental sustainability.

Objectives	Areas of Focus	How
Build strong communities where Microsoft operates datacenter infrastructure through connecting need to programs and resources	• Affordable Broadband	Investing in various projects designed to improve access to affordable broadband
Support volunteerism and opportunities for investment in local communities by our Datacenter Operations employees	• Community Empowerment	Addressing community priorities through ecosystems of local partnerships, teaming to deliver diverse social, economic, and environmental outcomes
Develop sustainable programs to maximize long term community impact	• Workforce Development	Developing continuing education programs focused on digital skills and career pathways for growing and diverse datacenter workforce
	• Environmental Sustainability	Serving the needs of a growing population and embracing a future based on cloud computing while leaving a positive ecological footprint

DCCD Broadband

Current Partnerships/Projects*:

Grant County, WA:
- Partnered with GCPUD to contribute $200,000 to accelerate the build of fiber through the community of George, WA

Boydton, VA:
- Deployed a free public Wi-Fi system through downtown. Fully funded $80,000. Live Oct 10th
- Performing a full upgrade of WLAN infrastructure for a local elderly care facility. Fully funded $17,000. Est. November complete

West Des Moines, IA:
- Partnered with City of West Des Moines to contribute $150,000 in support 2 initiatives:
  - Deployment of free public wi-fi system through the town of Valley Junction (target completion November)
  - Pilot of T-Mobile EmpowerED program: 200 T-Mobile mi-fi at Hillside Elementary school

Cheyenne, WY:
- Funded and executed upgrade of WLAN infrastructure for the Comea Homeless Shelter. Fully funded $15,000. Completed June, 2018

*Additional partnerships in development, but not yet public

Key Principles and Offerings:

Invest in communities where Microsoft operates Datacenter infrastructure*
- Emphasis on eventual self-sustainability

- Partner with local Service Providers and community non-profit partners
- Keep the money in the community
- Microsoft does not own or operate broadband infrastructure
- Microsoft is not the customer or receive any services in exchange

Technology agnostic:
- Fiber, Wi-Fi, Cellular, TVWS, etc
- Public WAN vs Private LAN (i.e. Comea)

Provide Technical Consulting & Purchasing Power

Support Marketing & Community Awareness

DCCD broadband programs are generally more 'urban' than Airband

Resources & Videos:

Videos:
TechSpark in Quincy WA: https://www.tealsk12.org/schools/school-stories/
Broadband support in Southern Virginia: https://www.youtube.com/watch?v=wYHqmSN4Oeo&feature=share
Connect Americans Now/Declaration Networks: https://www.youtube.com/watch?v=nM2yre0CkM4

Connect Americans Now

website: https://connectamericansnow.com/

Microsoft Contacts:

Airband: Melissa Sassi mesassi@Microsoft.com

TechSpark: Lisa Karstetter (Washington): lisa.Karstetter@Microsoft.com

DCCD: Robert Sloan robert.sloan@Microsoft.com

Thank you!

United States Department of Agriculture

Rural Development

Presented by:

Peter McMillin, Community Programs Director

USDA Telecommunications Programs

IACC
Wenatchee, WA
10/23/2018

Telecommunications Infrastructure Program
(Primarily a Telephone Company Loan Program)

Available Funding	Program Updates
FY 2016 • **$690 million** available in FY 2016 **FY 2017** • **$690 million** available in FY 2017 **FY 2018** • **$690 million** available in FY 2018 • Loans finance new & improved telecommunications infrastructure, primarily for the benefit of rural populations of 5,000 or less \<Typically\> • Loans may serve non-rural subscribers in some cases	**FY 2016** • **14** loans approved: **$194.5 million** **FY 2017** • **21** loans approved: **$427.4 million** **FY 2018** • **13** loans approved: **$161.9 million** • **9** loans in process: **$148.1 million** • Pipeline: **22** loans: **$310.0 million** • Applications are accepted year round • RD Apply online application system

https://www.rd.usda.gov/programs-services/telecommunications-infrastructure-loans-loan-guarantees

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Telecommunications Farm Bill Broadband Program
(aka Rural Broadband Access Loan and Loan Guarantee Program)

Available Funding	Program Updates
FY 2016 • **$64 million** available in FY 2016 **FY 2017** • **$27 million** appropriated in FY 2017 **FY 2018** • **$29.9 million** available in FY 2018 * * Additional Carry over funding is available from previous fiscal years • Loans finance the costs of constructing a broadband network • Amounts from $100,000 to $25 million • Broadband Service and Broadband Lending Speed is defined as 25 Mbps (download) and 3 Mbps (upload) • Serving rural communities of 20,000 or less \<typically\> • At least 15% of the proposed funded service area households in unserved • Cannot have 3 or more incumbent service providers • Service area cannot be in a RUS previously funded area	**FY 2016** • **1** loan approved: **$4.1 million** **FY 2017** • **2** loans approved: **$24.0 million** **FY 2018** • **1** loan in approved: **$19.9 million** • **9** loans in process: **$115.6** million • Pipeline: 10 loans: **$135.5** million • **RD Apply** online application system • **NOSA Released** on March 28th, 2018 • RUS is now accepting applications on a rolling basis • his will give RUS the ability to request additional information and modifications to a submitted application whenever necessary • Applications will be processed on a first come, first served basis • Every 90 days, RUS will conduct an evaluation of submitted applications, ranking them based on the percentage of unserved households • RUS conducted least 2 evaluation periods for FY2018

https://www.rd.usda.gov/programs-services/farm-bill-broadband-loans-loan-guarantees

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Telecommunications Farm Bill Broadband Program –Did You Know?

* Loan Amounts between $100,000 & $25 Million.

* Unserved areas: ''Broadband Service'', the rate used to determine if an area is eligible for funding, shall mean the minimum rate of data transmission of 25 megabits downstream and 3 megabits upstream for both mobile and fixed service.

Applicant Priority: The greatest proportion of unserved households.

* Broadband Lending Speed: Applicants must propose to offer new broadband service at a minimum bandwidth of 25 megabits downstream and 3 megabits upstream for both mobile and fixed service to the customer.

Special Terms and Conditions may apply if more than 50% of the households are unserved:
- up to 4 year principal deferral
- 25% extension to the amortization period of the loan up to 35 years

Standard Loan Terms include:
- 2 Year Principal Deferral
- Interest Rate at the Cost-Of-Money
- Loan Maturity - Life of the Facilities Financed Plus 3 Years

* As of the most recent NOFA on March 28, 2018.

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SUTA - For All Telecommunications Loan Programs – Did You Know?

Modified Loan Terms for Serving a Substantially Underserved Trust Area (SUTA) include:
- At the discretion of Administrator, RUS can modify certain loan terms or application requirements, which may include:
  - Interest rates as low as 2%, extended amortization period, and/or priority processing
  - Loan interest rates as low as 2 percent;
  - Waiver of certain documentation requirements regarding non-duplication of service;
  - Waiver of matching funds or credit support requirements for loans;
  - Extension of the time period in which loans are repaid; and
  - Providing the highest priority for funding to eligible projects that will serve trust areas.

Example Infrastructure Loans financed using SUTA:
- **FY 2015 -- Mescalero Apache Telecommunications (NM) $5.4 million**
- **FY 2016 -- Sacred Wind Communications (NM) $13.8 million**
- **FY 2018 -- Hopi Telecommunications, Inc. (AZ) $5.82 million**

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Expanding Broadband in Rural America

A new broadband e-connectivity pilot program was included in the FY 2018 budget signed by the president on 03/23/2018

- $600,000,000, to conduct a broadband loan and grant pilot program under the Rural Electrification Act

- Specific details of the program will be worked on in the upcoming months

- The program will be designed to focus on rural area where at least 90% of the households to be served shall be in a rural area without sufficient access to broadband, defined for this pilot program as 10 Mbps downstream, and 1 Mbps upstream.

- Press Release: https://www.usda.gov/media/press-releases/2018/03/23/secretary-perdue-applauds-broadband-investment-included-omnibus

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Program Details are To Be Determined

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Telecommunication Grant Programs

- Community Connect Grants

- Distance Learning & Telemedicine Grants

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Community Connect Program

Available Funding	Program Updates
FY 2016 • **$11.74 million** available in FY 2016 **FY 2017** • **$34.5 million** available in FY 2017 **FY 2018** • **$30.0 million** available in FY 2018 * * Carryover funding is sometimes available from previous fiscal years **General provisions as of the latest NOSA:** • Grant funds for Broadband Service deployment • Population of 20,000 or less • Amounts from $100,000 to $3 million • Service Area must be entirely unserved • Minimum Broadband Service is defined as 10 Mbps (download) and 1 Mbps (upload) • Minimum Broadband Grant Speed is defined as 25 Mbps (download) and 3 Mbps (upload) • 15% Matching Requirement	**FY 2016** • **Over 70** applications received: **$120 million** • **9** applications approved: **$15.6 million** **FY 2017** • 48 Applications processed for **$90.8 million** • **15** grants approved: **$32.3 million *** ** More grant awards are possible pending final paperwork **FY 2018** • **NOSA Released** on March 15, 2018 • Submissions were received by May 14, 2018 & are being evaluated • **125** Applications received for **$225.6 million**

http://www.rd.usda.gov/programs-services/community-connect-grants

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Distance Learning and Telemedicine (DLT) Program

Available Funding	Program Updates
FY 2016 • **$23.4 million** available in FY 2016 **FY 2017** • **$23.6 million** available in FY 2017 **FY 2018** • **$29.0 million** available in FY 2018 • **$20.0 million** additional available in FY 2018 in rural areas to help address the opioid epidemic in rural America • Grants fund equipment needed to provide Distance Learning and Telemedicine services • 15% Matching Requirement • Minimum Grant amount: $50,000 • Maximum Grant Amount: $500,000 • Only grants are available-no loans or combo loan/grants	**FY 2016** • **182** applications received • **98** applications approved: **$27.7 million** • **35** States & Territories represented **FY 2017** • **208** applications received by July 17, 2017 • **86** applications approved: **$27.7 million** • **46** distance learning & **40** telemedicine projects • **30** States & Territories represented • **71 of 86** (83%) serving Special Consideration Areas **FY 2018** • **NOSA Released** on April 3, 2018 • Submissions were received by June 4, 2018 & are being evaluated • **223** Applications received for **$67.6 million**

http://www.rd.usda.gov/programs-services/distance-learning-telemedicine-grants

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USDA United States Department of Agriculture

Rural Development

For detailed information please contact:

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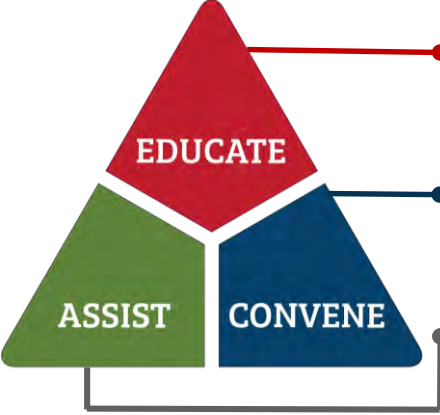**BroadbandUSA**
Connecting America's Communities

Broadband and Economic Development

Technical Assistance, Collaboration, and Resources

October 23, 2018
Wenatchee, WA

BroadbandUSA

NTIA's BroadbandUSA program educates stakeholders, facilitates relationships, and provides helpful resources

EDUCATE — Arm stakeholders with key information to have more effective discussions with providers

CONVENE — Convene & facilitate conversations

ASSIST — Provide guidance to stakeholders, partners and providers

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BroadbandUSA

Objectives of Smart Communities' Programs

THE CONNECTED COMMUNITY

- Improve Access and Inclusion
- More Sustainable Programs
- Drive Cost Savings
- Increase Economic Development
- Workforce Development

- Innovation
- Improve Education and Public Health
- Community Resiliency
- Civic engagement
- Data Driven Decisions

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BroadbandUSA Practical Conversations Webinars

November 14th 11:00 am PT
Broadband Connectivity is Transforming Healthcare

January 16th 11:00 am PT
Measuring the Digital Divide: Review of Recent Surveys and Data

More information and to Register, go to
https://broadbandusa.ntia.doc.gov/

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Funding Options

- Public Private Partnerships
- State Funding (CERB)
- Federal Communications Commission (FCC)
- U.S. Department of Agriculture (USDA)
- Economic Development Administration (EDA)
- Housing & Urban Development (HUD)
- National Science Foundation (NSF)
- Department of Transportation (DOT)
- Visit broadbandusa.ntia.doc.gov/pastevent to replay our 10/18 webinar: Federal Broadband Funding: Policies and Programs to Connect America

28   *BroadbandUSA: A Guide to Federal Funding of Broadband Projects*

BroadbandUSA

BroadbandUSA is available to help states and communities with broadband infrastructure, digital inclusion, and smart communities efforts!

BBUSA Resources:
- Implementing a Broadband Network Vision: A Toolkit for Local and Tribal Governments
- Community Broadband Roadmap Toolkit
- Guide to Federal Funding of Broadband Projects
- Using Partnerships to Power Smart Cities
- More on our website!

- Please take some materials
- Leave me your card so that I can add you to our mailing list
- Participate in monthly webinars
- Contact us:
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BroadbandUSA

Ag & Rural Super Cluster

Agriculture
Looking at ways to streamline food sheds (supply chain, i.e., farm to table) and increase smart ag (crops, livestock).

Rural Communities
Potential collaborations to streamline and improve government services, education, workforce development and deploy regional approaches.

HealthCare
Collaborating on telehealth projects (wearables, data analytics, remote monitoring), telemedicine (physical and mental), blockchain, and cybersecurity.

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Community Economic Revitalization Board

CERB Rural Broadband Program

Community Economic Revitalization Board

Objective

To finance the cost of building broadband infrastructure to provide high-speed, open-access broadband service for rural underserved communities, for the purpose of community economic development.

Community Economic Revitalization Board

Eligible Jurisdictions

- Cities & Towns
- Counties
- Federally Recognized Tribes
- Municipal and Quasi-Municipal Corporations
- Port Districts
- Special Purpose Districts (e.g. PDAs, PUDs)

Community Economic Revitalization Board

Eligible Infrastructure & Minimum Speeds

Including, but not limited to for the purpose of broadband infrastructure:

Cable Modem	100/20Mbps
Fiber	1Gbps/1Gbps
Wireless (fixed wireless, wifi)	50Mbps/10Mbps
4G Mobile Wireless	25Mbps/5Mbps
Broadband over Powerlines (BPL)	100Mbps/100Mbps
Microwave	100Mbps/20Mbps

Community Economic Revitalization Board

How CERB works

- Applications are due 8 weeks prior to a meeting.
- Staff works with the client to vet the application and project.
- Board meets to review applications every two months.
- The applicant presents the proposal to the Board.
- The applicant will know at the meeting if their project is approved.

Community Economic Revitalization Board

Community Economic Revitalization Board

To learn more:
S12: CERB Rural Broadband
Session - NEXT!