

A man with a beard is shown in profile, looking at a tablet device. He is standing in a rural field with rows of solar panels in the background. The entire image has a blue color overlay.

Universal Service

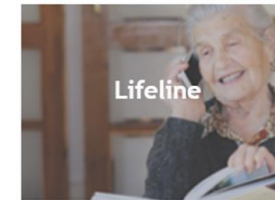
Expanding access
to modern communications networks
across rural America



Universal Service
Administrative Co.

- **Universal Service Fund: An Overview of Four Programs**
 - Mark Sweeney, Chief Operating Officer, USAC
- **Connect America: Modernizing the High Cost Program**
 - Habib Simab, Director of Operations, High Cost
- **The HUBB Portal: Tracking Broadband Deployment**
 - William Johnson, Director of GIS, USAC

Schools & Libraries



Schools & Libraries Mission

Help ensure that schools and libraries can obtain high-speed Internet access and telecommunications at affordable rates, and keep students and library patrons connected to broadband by providing a discount on eligible services

By the Numbers

- Overall funding is capped at \$3.9 billion per year
- USAC receives roughly 45,000 applications for discounted services each year
- *Category 1 Services*: data transmission services and Internet access, and voice services (though voice is declining)
- *Category 2 Services*: internal connections, managed internal broadband services, and basic maintenance of internal connections

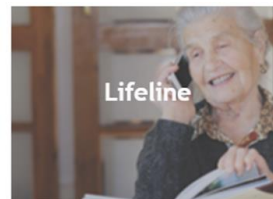
Eligibility

- Elementary and secondary schools and school districts are eligible; certain non-traditional educational facilities (Pre-K, Head Start, juvenile justice, and adult education) are eligible if they provide elementary/ secondary education as defined by state law
- Libraries and library systems
- Eligible entities can form consortia by banding together to aggregate demand and negotiate lower prices

Current Activities

- Implementing two FCC modernization orders
- EPC system introduction and development

Rural Healthcare



RHC Mission

Provide discounts for telecommunications services, broadband services and equipment for health care providers (HCPs)

By the Numbers

- Authorized to disburse up to \$400 million annually
- Telecom Program: Funds difference between urban and rural rates for telecom services for rural HCPs
- Healthcare Connect Fund Program: Funds 65 percent subsidy for all eligible broadband services and infrastructure for rural and urban HCPs. (Urban HCPs must participate as consortia members)

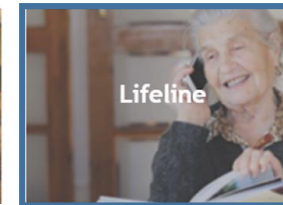
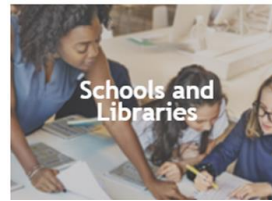
Eligibility

- Not-for-profit hospitals and dedicated emergency departments of rural for-profit hospitals
- Rural health clinics
- Community mental health centers
- Local health departments or agencies
- Post-secondary educational institutions offering health care instruction, teaching hospitals and medical schools
- Community health centers or centers serving migrants
- Consortia of HCPs consisting of rural not-for-profit hospitals
- Skilled nursing facilities

Current Activities

- Closing out Funding Year 2016 commitments
- Reviewing incoming applications for FY 2017
- Developing targets and metrics in new operating environment (filing windows)

Lifeline



Lifeline Mission

Encourage affordable voice and broadband bundled services for low-income households to enable essential participation in society

By the Numbers

- 12.7 million subscribers each month
- 353,476 Tribal subscribers each month
- \$126.3 million average monthly support
- \$1.5 billion total Lifeline support in 2016

Eligibility

- Households that participate in SNAP, Medicaid, federal public housing assistance, Veterans Pension and Survivors Benefit or Supplemental Security Income
- Households with income that is less than 135 percent of the federal poverty guidelines.
- Tribal participants that participate in Tribal benefit programs and live on Tribal lands.

Current Activities

- National Verifier development
- Implementing 2016 Modernization Order

High Cost

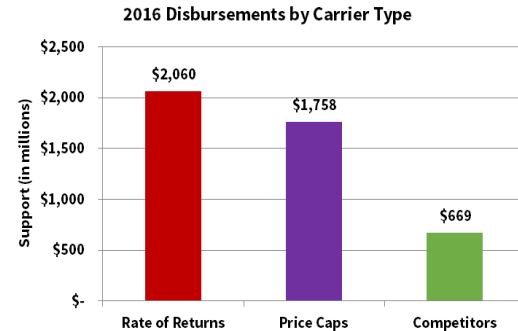
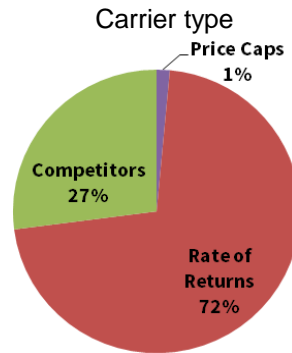


High Cost Mission

Expand broadband and maintain voice and broadband coverage by collaborating with stakeholders to achieve a shared goal of ensuring universal availability of voice and broadband, both fixed and mobile, that is reasonably comparable to what is available in urban areas

By the Numbers

- Annual Budget: \$4.5 billion
- Eight Legacy Funds and Eight Modernized Connect America Funds



Eligibility

Wireline and wireless telecommunications companies that provide service in remote and underserved communities, including Price Cap carriers, Rate of Return carriers and wireless providers

Current Activities

- Design and implementation of the Connect America Fund verification process and workflow automation
- HUBB portal phases 1, 2 , and 3
- Developing GIS mapping infrastructure
- Implement new funds: Alaska Plan, CAF II Auction, Mobility Fund II, Challenge Processes

Connect America Program

Program Goals

1. Preserve and advance universal availability of voice service
2. Drive universal availability of modern networks capable of providing voice and broadband service to homes, businesses and community anchor institutions
3. Drive universal availability of modern networks capable of providing advanced mobile voice and broadband service
4. Ensure that rates for broadband and voice services are reasonably comparable in all regions of the nation
5. Contain administrative costs and minimize the universal service contribution for consumers and businesses through efficient, effective program management

Connect America Program

CAF Funding in Price Cap Areas

CAF Phase I Incremental	CAF Phase II Model	CAF Phase II Auctions	Rural Broadband Experiments (RBE)	CAF Inter-carrier Compensation (ICC)
<ul style="list-style-type: none">• Interim program to spur broadband deployment• \$486 million• Build out to locations unserved by 4/1 Mbps• Round one deployed by July 2016, 147,000 locations	<ul style="list-style-type: none">• Provides support based on a cost model• \$1.7 billion annually• Six-year support term• Provide locations with speeds of at least 10/1 Mbps• Deployed by Dec 2020, 3.5 million locations	<ul style="list-style-type: none">• Provides support to areas declined in CAF II, extremely high-cost areas and certain other census block that were removed from model offer through a reverse auction• 10 year term of support• Build out to unserved locations with speeds of at least 10/1 Mbps to 1GB/500Mbps	<ul style="list-style-type: none">• Provided support in Price Cap areas through an auction• More than \$40 million over ten years• Build out to unserved locations with speeds between 10/1 Mbps and Mbps	<ul style="list-style-type: none">• Allows recovery of revenues reduced due to ICC reforms in 2012• Support intended to invest in broadband infrastructure• Program will phase out for Price Cap carriers in July 2019

Connect America Program

CAF Funding in Rate-of-Return Areas

Alternative Connect America Cost Model (A-CAM)	High Cost Loop Support (HCLS)	Connect America Broadband Loop Support (CAF BLS)	CAF Inter-carrier Compensation (ICC)
<ul style="list-style-type: none">• Support based on cost model• Provide locations with speeds of at least 10/1 Mbps and 25/3 Mbps• Some 4/1 Mbps reasonable request• 714,000 locations deployed by 2026	<ul style="list-style-type: none">• Legacy program to support voice• Provides support for the last mile of connection in areas where the cost to provide service exceeds 115 percent of the national average cost	<ul style="list-style-type: none">• Supports voice, voice and broadband, and broadband-only services• Replaced ICLS• Five-year deployment obligation milestone	<ul style="list-style-type: none">• Allows recovery of revenue reduced due to ICC reforms in 2012• Support intended to invest in broadband infrastructure• CAF ICC support recipients must provide broadband with minimum speed requirements of 4/1 Mbps

Connect America Program

CAF Funding – Mobile Services

Mobility Fund Phase I

- \$300 million in non-tribal areas
- \$50 million in tribal lands
- Build-out of networks to support:
 - 3G – 50/200 Kbps
 - 4G – 200/768 Kbps
- Voice and Broadband Services
- Letter of credit requirement

Mobility Fund Phase II

- \$453 million in non-tribal areas
- 7 percent reserved for tribal lands
- Build-out of networks to support:
 - 4G LTE – 10/1 Mbps
- 10-year program
- Voice and broadband services
- Letter of credit requirement

High Cost Universal Broadband (HUBB) Portal

USAC is building a new portal to collect and share the geographic coordinates (latitude and longitude) of locations where carriers are deploying broadband using Connect America support

1. A means for collecting location-specific service availability data from carriers across all Connect America Fund (modernized) programs – millions of individual records
2. Real-time validation of data submissions and platform for verification
3. Data storage, quality control and data manipulation engine
4. Potential to eventually replace separate carrier filing tools
5. API's and presentation layers for visibility of the collected data, with the public-facing side of the portal to provide information about the impact of Connect America funding on broadband expansion throughout rural America

Record Layout for new High Cost Universal Broadband (HUBB) data

Field	Example
SAC*	579999
Latitude*	39.509220
Longitude*	-98.433700
Date of Deployment*	02/28/2017
Download/Upload Speed Tier*	3
Address*	715 Wisconsin Street
City*	Cawker City
State*	KS
ZIP Code*	67430
# of Units*	3
HUBB Location ID	(blank)

It's GIS data!

What's different in the new data USAC will have?

New!

National Broadband Map, Form 477

Shows ALL broadband service, regardless of funding source (private capital, USF, other incentives)

Highest level of granularity is at the Census Block (one address served → entire block depicted as served)

NBM compiled by states that gathered data from carriers; 477 data filed twice a year with FCC by carriers

NBM launched in 2010 and updated every six months through June, 2014; Form 477 updated twice a year

Shows number of providers, technologies, speeds, carriers

HUBB data

Shows only USF-funded network expansions

Highest level of granularity is at individual broadband deployment location (lat/long coordinates)

Data submitted by carriers pursuant to reporting requirements in Rate of Return Modernization Order and subsequent FCC orders.

No launch date specified, but will include data from 2016 for next 10 years.

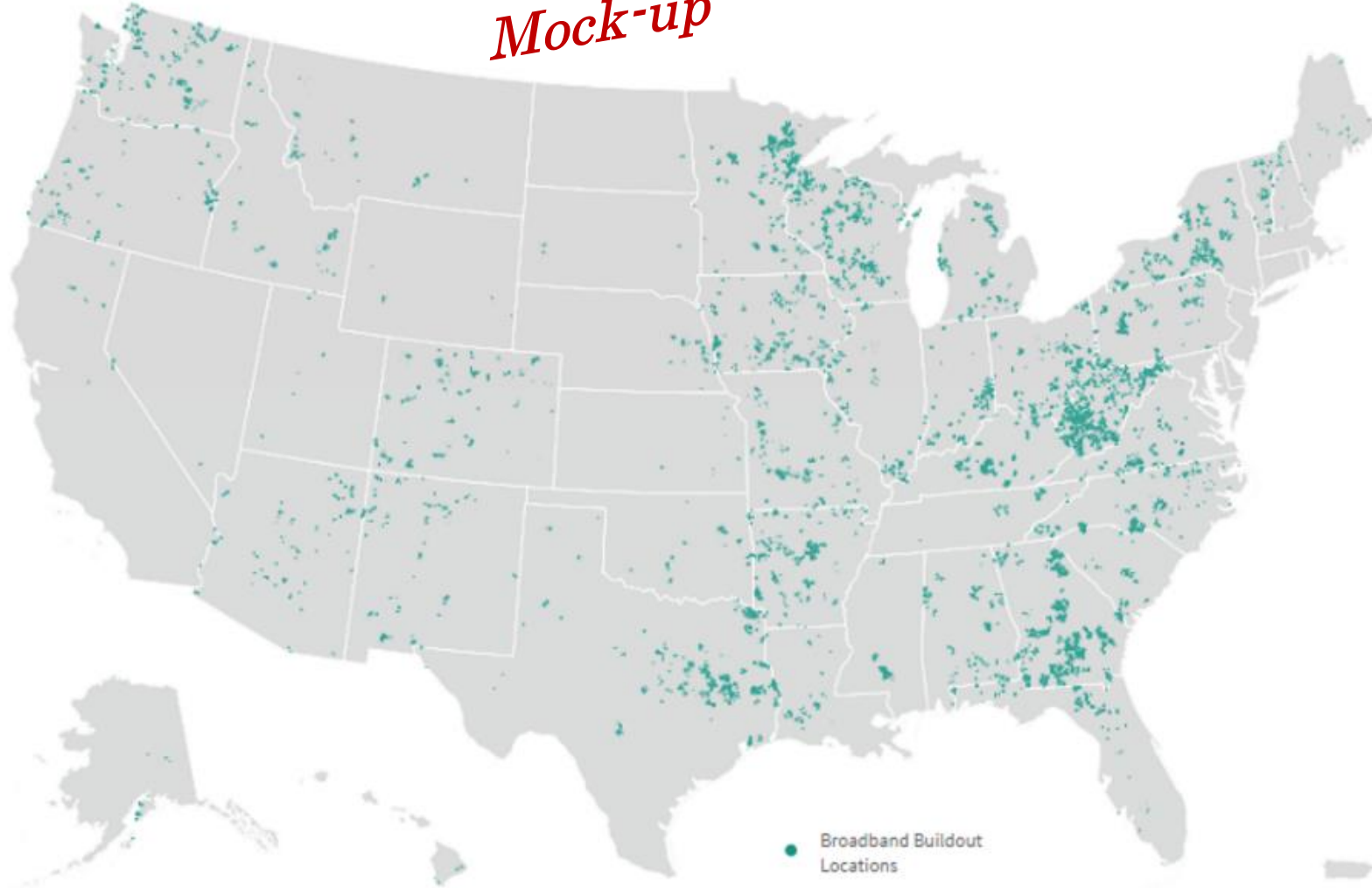
Shows USF-funded network expansion (carriers, speeds, technologies, locations)

BROADBAND EXPANSION MAP

 MORE MAPS

 Search for Location

*Preliminary
Mock-up*





*Preliminary
Mock-up*



Block ID: xxxx
Address: XXXXX
Code: Served, Funded by USF
Carrier: AT&T
Fund: CAF II
Available Speeds:
At Least 25 Mbps download
At Least 3 Mbps upload
Deployment Date: Feb, 2016

How will you access the new data?

- Download the data
 - From the public-facing Connect America map site (to come)
 - From USAC's emerging Open Data pages on [UniversalService.org](https://www.universalservice.org) (pilot project underway now, full implementation TBD, likely 2018)
- Connect via API
 - GIS web services, specifically OGC-compliant Web Feature Services (when Connect America maps are launched)

Questions?

