BROADBAND & E-RATE TASK FORCE REPORT ON PUBLIC LIBRARIES

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August 2017

NEW MEXICO LIBRARIES TRANSFROM

New Mexico Public Libraries
Broadband & E-Rate

Public libraries were in the forefront of predicting the potential of the Internet in their patron's everyday lives. The percentage of public libraries in the United States offering some form of Internet Connection rose from 20.9 percent in 1994 to 98.9 percent in 2004. The adoption of Wireless Internet in public libraries has been slower but has risen from 54.2 percent in 2007 to 97.8 percent in 2014. While New Mexico public libraries are amongst those figures, they still face obstacles in providing sufficient Internet Services to their communities.

While digital resources can be found through means other than libraries, they rarely combine public access technologies, digital content, and professionals who are ready to assist patrons in effectively navigating digital resources to meet their educational, employment, health and other needs. Today just 12 percent of American adults are "smartphone-only: internet users – meaning they own a smartphone, but do not have traditional home broadband service.[1]

This puts the public library in an unique situation to help foster digital learning in their communities.

"When librarians provide individuals with the hardware, software, and broadband connectivity to interact with online information and services, they have bridged the digital divide through access to technologies. When librarians help patrons use these systems to find the information they need and understand how to use a range of technologies and information sources, they improve adoption in their communities. Digital inclusion combines these two concepts that transcends just meeting the needs of individuals, instead giving individuals the resources needed to succeed in the digital age."[2]

Technology is an ever-changing entity and New Mexico libraries struggle to keep their technology resources current. Participants at the 2016 Libraries Transform New Mexico Conference identified two issues that hindered public libraries from fulfilling their goal of continuing to provide digital inclusion for New Mexico residents. These issues were limited broadband resources and funding. The Libraries Transform New Mexico Broadband Task Force was formed to evaluate and make recommendations on the following:

1. Current broadband access information on Public Libraries.
2. Current E-rate grant funding

Broadband & New Mexico Public Libraries

Public libraries provide essential services to their communities through broadband Internet technologies. Broadband through public libraries enables New Mexico residents to have access to E-government, employment, education, health and other Internet-enabled services and resources. Furthermore, public libraries offer broadband Internet connectivity at speeds that often exceed what is available at work or in the home, and public libraries offer a wide range of free computer and Internet use instruction that depend on broadband access.

Digital Literacy Skills Influences Need for Higher Broadband Speed

The scope of the digital literacy skills needed in our personal, professional, and community development was identified in the 2014 New Mexico Broadband Program: Digital Literacy Strategic Plan, Version 4.6. These skills can be seen in Table 1 and Table 2.

Table 1: Digital Skills Needed by Community Sector

Sector	Digital Skills Needed
Health	Health and media literacy for access to information, care, and records; online communications and forms for consultations, prescriptions, insurance
Agriculture	Media literacy for weather, water and crop information; online and social media marketing for value - added products
Business	Online presence and marketing tools, including website development/maintenance, online and social media marketing and tools
Economic Development	Basic digital skills for workforce training; business digital skills for small business development; high level skills for film and emerging media
Education	Media literacy for research, online security for safe practices, basic skills for workforce training, online learning skills for distance education, GED/ESL test, high school credit recovery, higher education applications, financial aid applications
Finance and Banking	Basic skills and online security for safe banking, bill payment, online shopping; basic image and social media skills for online selling; applications skills for taxes
Seniors	Health literacy, media literacy, online security and safety
Energy	Basic and Geographic Information Systems (GIS) skills for information, mapping, documentation, and reporting

Table 2: New Mexico State Agencies Digital Skills-based Tasks and Training Provided

State Agencies	Agency Tasks Requiring Digital Skills	Training Provided
Human Services	Apply for health, child, food and income support and benefits	None
Social Security	Apply for social security, disability, and Medicaid	None
Workforce Solutions	Apply for unemployment; conduct job searches	Medium
Public Safety and Emergency	Access information; manage online communication; manage devices; follow online security practices	None
Healthcare	Access reliable information; schedule consultations; monitor vitals; manage prescriptions	None
Motor Vehicles	Register and renew; update address	None

New Mexico Public Libraries Depend on Broadband Connections

New Mexico public libraries offer free access to computer workstations, broadband, and Wi-Fi. Connection speeds have increased gradually for public libraries, but many of today's applications (e.g., social networking, streaming video) demand greater bandwidth and higher connection speeds. The public library service framework is one in which multiple public access computers, staff computers, and patron devices (i.e., laptops and handheld mobile devices) connected via the library's Wi-Fi are in continuous use as they access broadband-intensive services and resources, often using the same connection. It is likely the strain on public library broadband systems will continue to increase as patrons come to rely on new interactive, multimedia, and high-resolution applications and programs.

In 2016, 15 percent of the 106 New Mexico public libraries, which include 28 branch libraries, reported to the New Mexico State Library that their current Internet Speed did not meet the needs of their patrons.[1] While more than half (85%) of public libraries reported that their broadband connection meets patron needs, more libraries are expected to report insufficient connections in coming years unless funding to improve broadband infrastructure is increased.

[1] New Mexico State Library (2016). "2015-2016 Annual Report."

Broadband Connection Speed

Libraries across different locales vary considerably in the strength of their broadband connections. The 2014 Digital Inclusion Survey stated that the national median subscribed connection speeds were:

Median subscribed download speed:

City: 40,960 kbps (40.0 Mbps)
Suburb: 25,600 kbps (25.0 Mbps)
Rural: 10,240 kbps (10 Mbps)

Median subscribed upload speed:

City: 30,720 kbps (30.0 Mbps)
Suburb: 20,480 kbps (20.0 Mbps)
Rural: 3,072 kbps (3 Mbps)

New Mexico public libraries are widely disbursed with large patches of unincorporated rural areas (see Figure A). A review of the Legal Service Area (LSA) for public libraries and their location was used to determine whether the library was urban, suburb, or rural.[3] The findings are as follows:

City: Speeds range from 1.6Mbps – Greater than 40Mbps with the largest city, Albuquerque, maintaining a connection speed of 10.1Mbps – 20mbps. The lowest is Rio Rancho at 1.6Mbps – 3.0Mbps. Also of note, the Santa Fe Public Library and its branches range from 10Mbps – 30Mbps.

Suburb: Speeds range from 10.1Mbps – Greater than 40Mbps. This was mainly a review of the libraries in the Albuquerque Metropolitan Area. Los Lunas and Bernalillo libraries had a similar speed while Belen topped out at Greater than 40Mbps.

Rural: Speeds ranged from 768Kbps – Greater than 40Mbps. The Michael Nivison Public Library in Cloudcroft is located in the Sacramento Mountains of southern New Mexico. This isolated library maintains a connection speed of 768Kbps while the Truchas Public Library that is in a rural area in northern New Mexico maintains a speed greater than 40Mbps. Note: Truchas is near Taos Public Library, which maintains a speed of 6.1Mbps – 10Mbps.

Overall the majority of New Mexico public libraries range from 3.1Mbps – 20Mbps (See Table 3.)

Figure A.

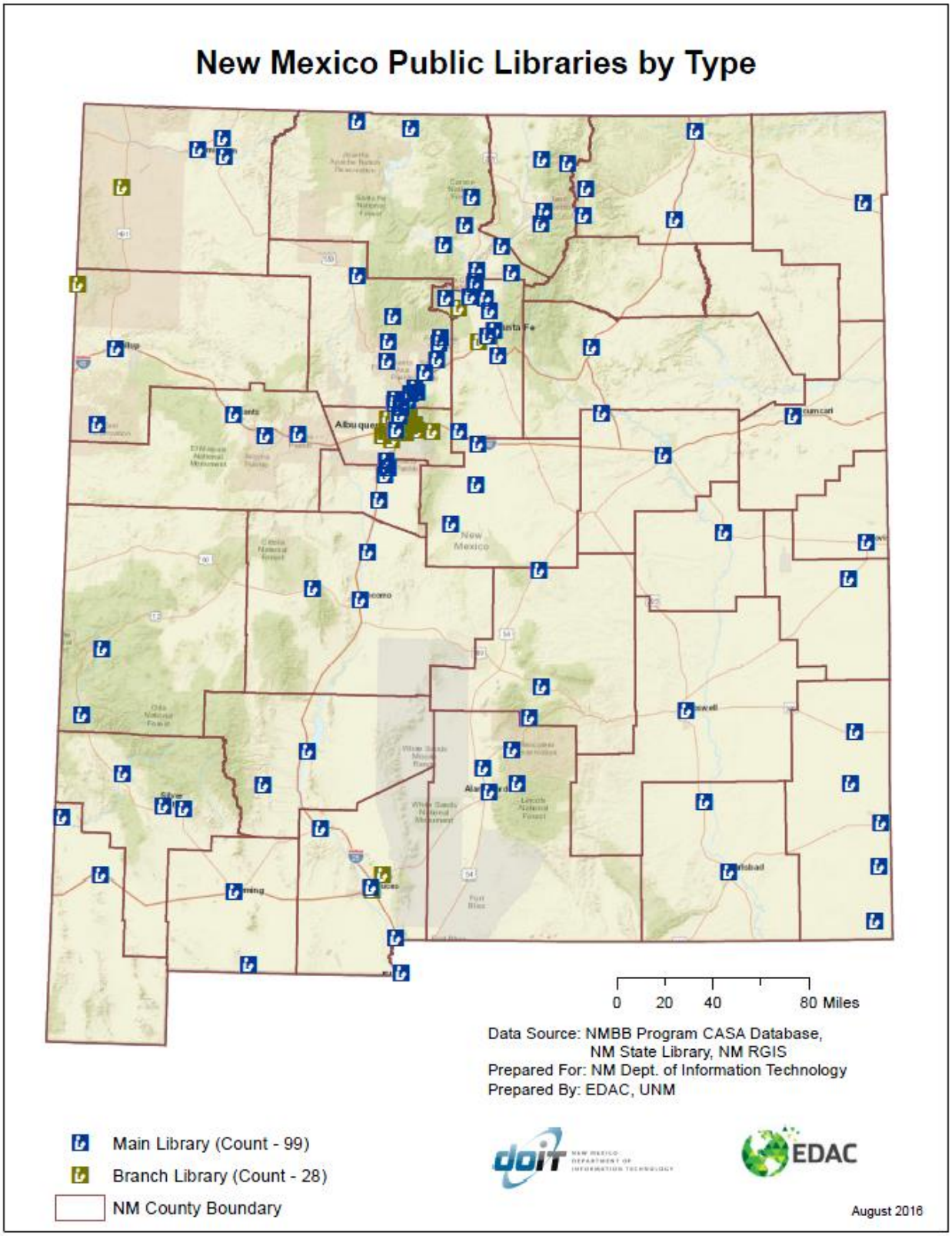
New Mexico Public Libraries by Type
0 20 40 80 Miles
Data Source: NMBB Program CASA Database,
NM State Library, NM RGIS
Prepared For: NM Dept. of Information Technology
Prepared By: EDAC, UNM
Main Library (Count - 99)
Branch Library (Count - 28)
NM County Boundary
doIT
EDAC
August 2016

Table 3: New Mexico Public Libraries Connection Speeds

Connection Speed	Number of Libraries	Percentage
Not connected	3	2.80%
N/A	1	.94%
Less than 768Kbps	0	0.00%
768Kbps	1	.94%
1.5Mbps (T1)	6	5.66%
1.6Mbps – 3.0Mbps	7	6.60%
3.1Mbps – 6.0Mbps	16	15.09%
6.1Mbps – 10Mbps	15	14.15%
10.1Mbps – 20mbps	34	32.08%
20.1Mbps – 30Mbps	7	6.60%
30.1Mbps – 40Mbps	4	3.77%
Greater than 40Mbps	12	11.32%
Total	**106**	**100.00%**

Source: 2015-2016 New Mexico State Library Annual Reports

Internet Service Providers

New Mexico has a variety of Internet Service Providers that offer services to public libraries. A 2016 New Mexico Department of Information Technology survey identified broadband technology types and location (See Figure B.). As you can see, the libraries are widely disbursed with the majority placed in Bernalillo, Sandoval and Santa Fe counties. Of special note – there are no libraries in Harding and Mora counties.

The committee also identified the Internet Service Providers being utilized as well as the connection type and maximum Internet speed (Table 4.). Comcast is a popular vendor providing greater access speed but cable is not available in rural areas. Windstream and Centurylink are popular telephone companies that provide services as well.

Plateau is a telecommunication company that began in Eastern New Mexico as a telephone service amongst farmers, ranchers, and other citizens. They have now expanded into high-speed fiber-optic internet that has expanded to Central New Mexico.

Figure B.

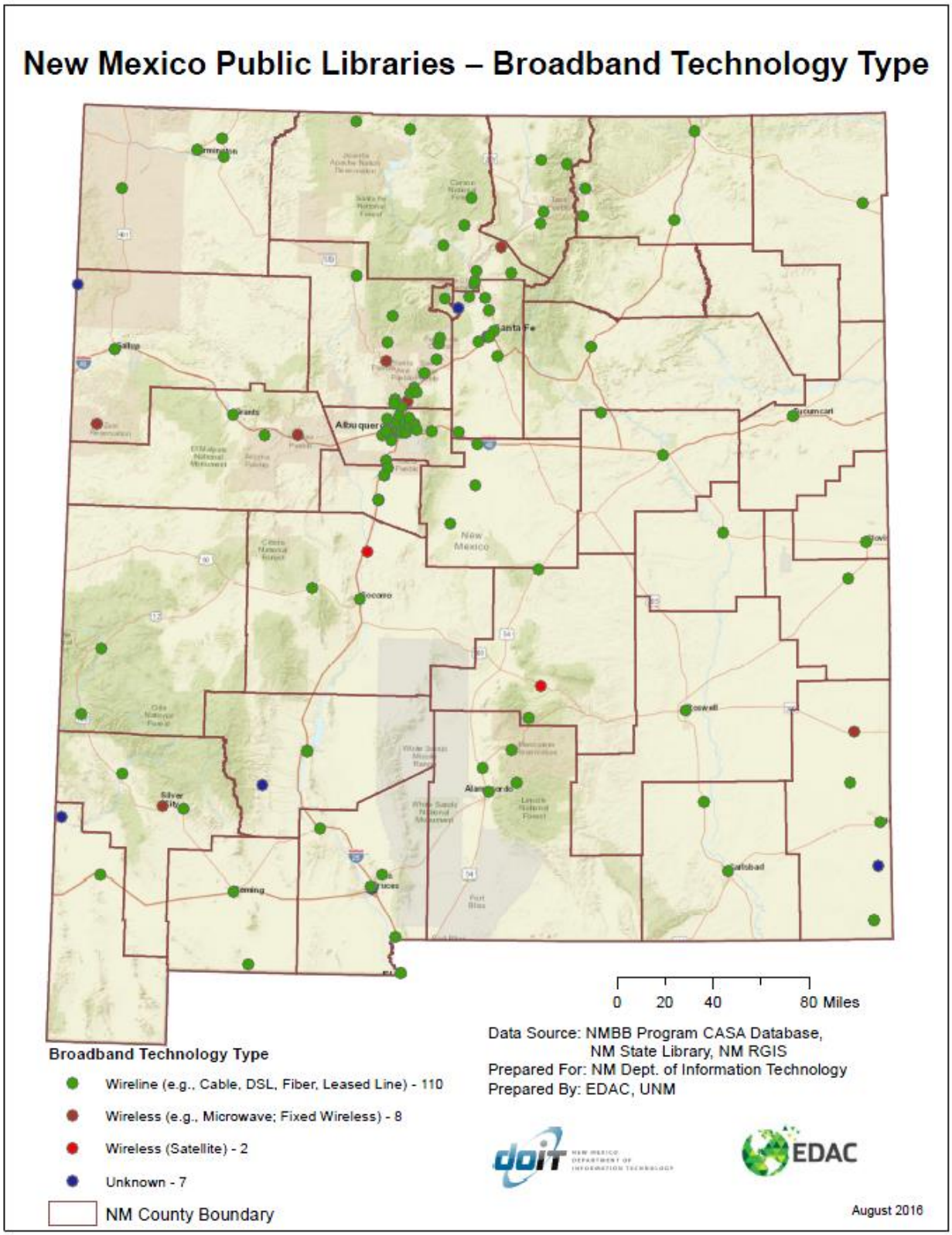
New Mexico Public Libraries – Broadband Technology Type
Santa Fe
Albuquerque
New Mexico
Roswell
Carlsbad
Deming
Silver City
Gallup
Grants
Las Cruces
Alamogordo
Clovis
Socorro
0 20 40 80 Miles
Data Source: NMBB Program CASA Database,
NM State Library, NM RGIS
Prepared For: NM Dept. of Information Technology
Prepared By: EDAC, UNM
Broadband Technology Type
Wireline (e.g., Cable, DSL, Fiber, Leased Line) - 110
Wireless (e.g., Microwave; Fixed Wireless) - 8
Wireless (Satellite) - 2
Unknown - 7
NM County Boundary
doIT
EDAC
August 2016

Table 4: Internet Service Providers

Internet Service Provider (ISP)	Internet Connection Type	Max Internet Speed	No. Libraries Utilizing
Black Mesa Wireless	Wireless(Microwave)	6.1Mbps – 10Mbps	1
CenturyLink	DSL	1.5Mbps(T-1)	3
CenturyLink	DSL	1.6Mbps – 3.0Mbps	3
CenturyLink	DSL	3.1Mbps-6.0Mbps	3
CenturyLink	Fiber Optic	3.1Mbps – 6.0Mbps	1
CenturyLink	DSL	6.1Mbps – 10Mbps	3
CenturyLink	DSL	10.1Mbps – 20Mbps	1
CenturyLink	Leased Line	10.1Mbps -20Mbps	1
CenturyLink	DSL	20.1Mbps – 30Mbps	1
CenturyLink	Fiber Optic	Greater than 40Mbps	1
Cibola Internet Services	Wireless(Microwave)	3.1Mbps – 6.0Mbps	1
City Net Fiber	Fiber Optic	10.1Mbps-20Mbps	1
Comcast	Cable	1.6Mbps – 3.0Mbps	1
Comcast	Fiber Optic	1.6Mbps – 3.0Mbps	1
Comcast	DSL	10.1Mbps – 20mbps	1
Comcast	Fiber Optic	10.1Mbps – 20mbps	4
Comcast	DSL	20.1Mbps – 30Mbps	3
Comcast	Cable	30.1Mbps – 40Mbps	1
Comcast	Cable	Greater than 40Mbps	1
Comcast	DSL	Greater than 40Mbps	2
Comcast	Fiber Optic	Greater than 40Mbps	3
Cybermesa	Wireless(Microwave)	10.1Mbps – 20mbps	1
ENMR Plateau	Fiber Optic	6.1Mbps-10Mbps	1
ENMR	DSL	10.1Mbps – 20mbps	1
Fast Track Communications	Fiber Optic	Greater than 40Mbps	1
Gilanet	DSL	6.1Mbps – 10Mbps	1
Kit Carson Telecom	Fiber Optic	10.1Mbps – 20mbps	3
Lea County Electric	Wireless(Microwave)	1.6Mbps – 3.0Mbps	1
Level3 Communications	Fiber Optics	10.1Mbps – 20mbps	13
Plateau	DSL	3.1Mbps – 6.0Mbps	1
Plateau	Fiber Optic	3.1Mbps – 6.0Mbps	1
Plateau	Fiber Optic	6.1Mbps – 10Mbps	2

Table 4: Broadband Providers (continued)

Internet Service Provider (ISP)	Internet Connection Type	Max Internet Speed	No. Libraries Utilizing
Plateau	Fiber Optic	20.1Mbps – 30Mbps	3
Plateau	Fiber Optic	30.1Mbps – 40Mbps	1
Plateau	Fiber Optic	Greater than 40Mbps	3
PVT Networks	DSL	6.1Mbps – 10Mbps	1
PVT Networks	Fiber Optic	6.1Mbps – 10Mbps	1
Redi-net	DSl	3.1Mbps-6.0Mbps	1
Sierra Communications	Fiber Optic	10.1Mbps – 20mbps	1
Southwest Wireless	Satellite	3.1Mbps-6.0Mbps	1
Sudden Link	Fiber Optic	3.1Mbps-6.0Mbps	1
Taos Net	Leased Line	6.1Mbps – 10Mbps	1
TBTC	Fiber Optic	3.1Mbps-6.0Mbps	1
TDS Broadband	DSL	1.5Mbps(T-1)	1
Time Warner Cable	Cable	30.1Mbps – 40Mbps	1
Tularosa Basin Telephone Co.	DSL	768Kbps	1
Tularosa Basin Telephone Co.	Leased Line	10.1Mbps – 20mbps	1
Valley Telecom	DSL	6.1Mbps – 10Mbps	1
Verizon	Wireless	N/A	1
WNM Communications	DSL	3.1Mbps-6.0Mbps	3
WNM Communications	Fiber Optic	3.1Mbps-6.0Mbps	1
Windstream	DSL	1.5Mbps(T-1)	2
Windstream	DSL	1.6Mbps -3.1Mbps	1
Windstream	DSL	6.1Mbps – 10Mbps	2
Windstream	Fiber Optic	6.1Mbps – 10Mbps	1
Windstream	DSL	10.1Mbps – 20mbps	4
Windstream	Fiber Optic	10.1Mbps – 20mbps	2
Windstream	DSL	Greater than 40Mbps	1
Wi-Power	Satellite	3.1Mbps-6.0Mbps	1
Yucca Telecom	Fiber Optic	30.1Mbps – 40Mbps	1
N/A	N/A	N/A	1
No ISP	N/A	N/A	3

Source: 2015-2016 New Mexico State Library Annual Reports

Funding Broadband

To successfully fulfill their critical role as important Internet access providers in their communities, public libraries need funding and infrastructure to support high-speed broadband Internet connections. Though libraries have steadily increased their bandwidth capacity over the years, the combination of an increase in the number of users and in the bandwidth requirements of the content – particularly the explosion of social media and user-generated content – has only increased bandwidth challenges. As more people rely on public libraries for Internet access, and as more of these people use a greater range of high bandwidth education, government, and entertainment content, the bandwidth capacity of libraries becomes an increasingly significant issue and so does funding.

The New Mexico Department of Information Technology identified in its Broadband Program Digital Literacy Strategic Plan that the federal E-Rate funding program through the Universal Service Administrative Company (USAC) was a significant source of funding for public libraries to obtain the broadband capacity they need to provide quality services. [4]

Federal Funding

The USAC E-rate program funds hardware and infrastructure projects for technology services for libraries. Librarians have been reluctant in the past to apply for E-rate funding due to the burdensome application process. The New Mexico State Library (NMSL) has been educating public libraries as to the benefits of E-rate and have offered training and suggested third party vendors to help prepare the grants as well.

The NMSL asked libraries in the 2015-2016 Annual Report if they applied for E-rate and if they planned to apply (See Table 5.) The majority said they would apply.

Table 5: E-Rate Information Taken from FY16 Annual Report

Library Name	Lib. Receives E-Rate	Will Apply for E-Rate
Alamogordo Public Library	No	Yes
Albert W. Thompson Memorial Library	Yes	Yes
Albuquerque/Bernalillo County Library System	No	Yes
Anthony Public Library	No	Yes
Artesia Public Library	Yes	Yes
Arthur Johnson Memorial Library	Yes	Yes
Aztec Public Library	No	No

Table 5: E-Rate Information Taken from FY16 Annual Report (Continued)

Library Name	Lib. Receives E-Rate	Will Apply for E-Rate
Bayard Public Library	No	Yes
Belen Public Library	No	No
Bloomfield Public Library	No	Yes
Bosque Farms Public Library	No	Yes
Capitan Public Library	No	No
Carlsbad Public Library	No	No
Carnegie Public Library	No	No
Clovis Carver Public Library	No	No
Columbus Village Library	Yes	Yes
Corrales Community Library	No	No
Cuba Public Library	Yes	Yes
David F. Cargo El Valle de Anton Chico Library	Yes	Yes
Eagle Nest Public Library	No	No
Edgewood Community Library	No	Yes
El Rito Public Library	Yes	Yes
Eleanor Daggett Memorial Library	No	Yes
Embudo Valley Library and Community Center	Yes	Yes
Espanola Public Library	No	No
Estancia Public Library	Yes	Yes
Eunice Public Library	Yes	Yes
Farmington Public Library	No	No
Fort Sumner Public Library	No	Yes
Fred Macaron Library	No	Yes
Gila Valley Library	No	No
Glenwood Community Library	No	No
Hatch Public Library	No	Yes
Hobbs Public Library	No	No
Irene S. Sweetkind Public Library	No	Yes
Lordsburg-Hidalgo Library	No	No
Los Alamos County Library System	No	No
Los Lunas Public Library	Yes	Yes
Lovington Public Library	No	No

Table 5: E-Rate Information Taken from FY16 Annual Report (Continued)

Library Name	Lib. Receives E-Rate	Will Apply for E-Rate
Magdalena Public Library	No	No
Marshall Memorial Library	No	No
Michael Nivison Public Library	No	Yes
Moise Memorial Library	Yes	Yes
Moriarty Community Library	No	No
Mother Whiteside Memorial Library	No	Yes
Mountainair Public Library	No	No
Octavia Fellin Public Library	No	No
Placitas Community Library	Yes	Yes
Portales Public Library	Yes	Yes
Questa Public Library	No	No
Red River Public Library	No	No
Reserve Public Library	No	No
Rio Abajo Community Library	No	No
Rio Rancho Public Library	Yes	Yes
Roswell Public Library	No	No
Ruidoso Public Library	No	No
Santa Fe Public Library	No	No
Shuter Library of Angel Fire	Yes	No
Socorro Public Library	No	Yes
Sunland Park Community Library	No	Yes
Talpa Community Center Library	No	No
Taos Public Library	No	Yes
Tatum Community Library	No	No
The Public Library	No	No
Thomas Branigan Memorial Library	No	No
Town of Bernalillo Public Library	Yes	Yes
Truchas Community Library	No	No
Truth or Consequences Public Library	Yes	No
Tucumcari Public Library	Yes	Yes
Tularosa Public Library	No	No
Vallecitos Community Center and Library	No	No

Table 5: E-Rate Information Taken from FY16 Annual Report (Continued)

Library Name	Lib. Receives E-Rate	Will Apply for E-Rate
Village of Corona Public Library	No	No
Villanueva Library	No	Yes
Vista Grande Public Library	No	Yes
Woolworth Community Library	No	No

Benefits of E-rate Funding

The benefits range for the public libraries. The discounts are based on the percentage of children on the school lunch program and the service or hardware applied for. In the 2016 – 2017 funding cycle 19 public libraries applied for funding for a total of $148,672.90 (See Table 5.)

Table 6: Public Library E-rate Applications and Awards as of January 2017

Billed Entity Name	Applicant City	Cmtd Total Cost	Cmtd Discount	Cmtd Funding Request
A JOHNSON MEMORIAL LIBRARY	RATON	$1,627.20	90%	$1,464.48
A JOHNSON MEMORIAL LIBRARY	RATON	$1,256.04	50%	$628.02
ALBERT W THOMPSON MEM LIBRARY	CLAYTON	$603.00	40%	$241.20
ALBERT W THOMPSON MEM LIBRARY	CLAYTON	$1,293.84	80%	$1,035.07
ARTESIA PUBLIC LIBRARY	ARTESIA	$5,153.52	40%	$2,061.41
ARTESIA PUBLIC LIBRARY	ARTESIA	$675.48	40%	$270.19
ARTESIA PUBLIC LIBRARY	ARTESIA	$2,829.12	40%	$1,131.65
ARTESIA PUBLIC LIBRARY	ARTESIA	$1,616.52	80%	$1,293.22
CITY OF BLOOMFIELD	BLOOMFIELD			
CUBA PUBLIC LIBRARY	CUBA	$6,432.00	90%	$5,788.80
CUBA PUBLIC LIBRARY	CUBA	$2,328.00	50%	$1,164.00
DAVID F. CARGO EL VALLE DE ANTON CHICO LIBRARY	ANTON CHICO	$774.72	50%	$387.36
DAVID F. CARGO EL VALLE DE ANTON CHICO LIBRARY	ANTON CHICO	$2,279.40	90%	$2,051.46
EL RITO PUBLIC LIBRARY	EL RITO	$1,576.32	90%	$1,418.69
EMBUDO VALLEY LIBRARY	DIXON	$1,320.00	50%	$660.00

Billed Entity Name	Applicant City	Cmtd Total Cost	Cmtd Discount	Cmtd Funding Request
ESTANCIA PUBLIC LIBRARY	ESTANCIA	$2,562.96	50%	$1,281.48
ESTANCIA PUBLIC LIBRARY	ESTANCIA	$731.88	90%	$658.69
EUNICE PUBLIC LIBRARY	EUNICE	$1,831.44	40%	$732.58
LOS LUNAS COMMUNITY LIBRARY	LOS LUNAS	$262.08	50%	$131.04
LOS LUNAS COMMUNITY LIBRARY	LOS LUNAS	$114.36	50%	$57.18
LOS LUNAS COMMUNITY LIBRARY	LOS LUNAS	$3,241.92	90%	$2,917.73
LOS LUNAS COMMUNITY LIBRARY	LOS LUNAS	$18,200.27	85%	$15,470.23
LOS LUNAS COMMUNITY LIBRARY	LOS LUNAS	$6,000.00	85%	$5,100.00
MARTHA LIEBERT PUBLIC LIBRARY	BERNALILLO			
MARTHA LIEBERT PUBLIC LIBRARY	BERNALILLO			
MARTHA LIEBERT PUBLIC LIBRARY	BERNALILLO			
MARTHA LIEBERT PUBLIC LIBRARY	BERNALILLO	$12,408.00	90%	$11,167.20
MARTHA LIEBERT PUBLIC LIBRARY	BERNALILLO	$11.16	50%	$5.58
MARTHA LIEBERT PUBLIC LIBRARY	BERNALILLO	$1,790.64	50%	$895.32
MARTHA LIEBERT PUBLIC LIBRARY	BERNALILLO	$629.76	50%	$314.88
MOISE MEMORIAL LIBRARY	SANTA ROSA	$624.00	50%	$312.00
MOISE MEMORIAL LIBRARY	SANTA ROSA	$720.00	50%	$360.00
MOISE MEMORIAL LIBRARY	SANTA ROSA	$1,896.00	90%	$1,706.40
PLACITAS PUBLIC LIBRARY	PLACITAS	$24,760.80	90%	$22,284.72
PLACITAS PUBLIC LIBRARY	PLACITAS	$153.00	50%	$76.50
PLACITAS PUBLIC LIBRARY	PLACITAS	$2,283.36	50%	$1,141.68
PLACITAS PUBLIC LIBRARY	PLACITAS	$803.28	90%	$722.95
PLACITAS PUBLIC LIBRARY	PLACITAS	$784.68	50%	$392.34
PLACITAS PUBLIC LIBRARY	PLACITAS	$3,870.86	85%	$3,290.23
PORTALES PUBLIC LIBRARY	PORTALES	$2,866.92	80%	$2,293.54
PORTALES PUBLIC LIBRARY	PORTALES	$857.40	80%	$685.92
PORTALES PUBLIC LIBRARY	PORTALES	$1,178.64	40%	$471.46
PORTALES PUBLIC LIBRARY	PORTALES	$149.52	40%	$59.81
PORTALES PUBLIC LIBRARY	PORTALES	$592.20	40%	$236.88
PORTALES PUBLIC LIBRARY	PORTALES	$144.36	40%	$57.74
RIO RANCHO PUBLIC LIBRARY SYSTEM	RIO RANCHO	$387.24	20%	$77.45
RIO RANCHO PUBLIC LIBRARY SYSTEM	RIO RANCHO	$8,368.08	20%	$1,673.62
RIO RANCHO PUBLIC LIBRARY SYSTEM	RIO RANCHO	$2,936.40	60%	$1,761.84
RIO RANCHO PUBLIC LIBRARY SYSTEM	RIO RANCHO	$23,632.20	60%	$14,179.32
TAOS PUBLIC LIBRARY	TAOS	$12,333.36	90%	$11,100.02
TAOS PUBLIC LIBRARY	TAOS	$28,172.44	85%	$23,946.57
VILLAGE OF COLUMBUS LIBRARY	COLUMBUS	$3,904.94	90%	$3,514.45

Source: USAC New Mexico Reports

Meeting the Required Match for E-rate Funding

The NM Department of information Technology identified in their 2014 report additional sources at the state and local level.

State Funding

State Grants in Aid

Distributed by the NMSL, the State Grants in Aid provides most libraries between $2,000 and $4,000. The money can be used to promote and assist libraries and developing libraries in providing collections, staffing, and services.

Go Bonds

Three million was appropriated to public libraries in 2014 and 2016 General Obligation Bond elections. These funds can be utilized to purchase equipment and hardware to assist libraries in paying their portion of the broadband project after E-rate funding.

Local Funding

City and other local government entities are the largest sources of funding for most public libraries. The unincorporated libraries request funding from their respective county governments. Municipal libraries rely on local funding with little to no assistance from the county even though they offer services to the community outside of their legal service area. These sources vary with locale and depend on the financial resources of the community. Thus libraries in regions of higher poverty rates and lower tax base will provide fewer resources and services to their community.

Recommendations

1. Educate librarians on how connection speed effects their patrons' experience and prepare a list of Internet Service Providers.[5]
2. Continue educating librarians on the benefits of applying for E-Rate funding.
3. Continue educating librarians on how to apply for E-rate funding.
4. Continue educating librarians on utilizing State Grant in Aid and Go Bond funds to establish quality broadband connections.
5. Educate Counties about the economic benefit of a strong library in their communities.
6. Establish mentor programs for librarians to assist librarians in applying.
7. Identify and foster consortia applications between public, school and academic libraries.

End Notes

[1] Pew Research Center: Internet & Technology. "Internet/Broadband Fact Sheet (2016)." Available at: http://www.pewinternet.org/fact-sheet/internet-broadband/.
[2] John Carlo Bertot, Brian Real, Jean Lle, Abigial J. McDermott, Paul T. Jaegar (2014). "2014 Digital Inclusion Survey: Survey Findings and Results." Available at http://digitalinclusion.umd.edu/sites/default/files/uploads/2014DigitalInclusionSurveyFinalRelease.pdf.

[3] Defining Rural Population - The federal government uses two major definitions of "rural," along with many variants that are also available. One is produced by the U.S. Census Bureau and the other by the Office of Management and Budget. The Federal Office of Rural Health Policy uses components of each definition when determining a classification for a geographic region.

U. S. Census Bureau Definition - The first definition developed by the Census Bureau identifies two types of urban areas:

- Urbanized Areas (UAs) of 50,000 or more people;
- Urban Clusters (UCs) of at least 2,500 and less than 50,000 people.

The Census does not actually define "rural." "Rural" encompasses all population, housing, and territory not included within an urban area. Whatever is not urban is considered rural.

The Census recognizes that "densely settled communities outside the boundaries of large incorporated municipalities were just as ''urban'' as the densely settled population inside those boundaries." Their definition does not follow city or county boundaries, and so it is sometimes difficult to determine whether a particular area is considered urban or rural. Under this definition, about 21% of the US population in 2000 was considered rural but more than 95% of the land area was classified as rural. In the 2010 Census, 59.5 million people, 19.3% of the population, was rural while more than 95% of the land area is still classified as rural.

[4] New Mexico Department of Information Technology. "The New Mexico Broadband Program: Digital Literacy Strategic Plan, Version 4.6, December 8, 2014." Available at: http://www.doit.state.nm.us/broadband/reports/nmbbp_digital_literacy_strategic_plan.pdf.
[5] Some of the answers on the annual reports were "I don't know" for the speed and for who their ISP was.