



Facilitating Rural Broadband in Indian Country

Ensuring Broadband in BIE Schools

Introduction

On January 8, 2018, the President signed Executive Order 13821, [*Streamlining and Expediting Requests to Locate Broadband Facilities in Rural America*](#) to improve internet and broadband services in rural and Native American communities that will support education and healthcare as well as boost economic opportunities across the country.

“Americans need access to reliable, affordable, broadband Internet service to succeed in today’s information-driven global economy” - President Donald J. Trump, January 8, 2018

According to the [Broadband deployment report](#) (based on 2016 data provided by Internet Service Providers), more than 35% of residents in Tribal lands lack access to the basic broadband capability.

Background

The Bureau of Indian Education (BIE) implements federal Indian education programs and funds 183 elementary and secondary day and boarding schools located on 64 reservations in 23 states and peripheral dormitories serving more than 48,000 students. BIE also operates two post-secondary schools and administers grants for tribal colleges and universities and technical colleges. BIE’s mission is to provide quality educational opportunities from early childhood through life in accordance with a tribe’s needs for cultural and economic well-being, in keeping with the wide diversity of Indian tribes and Alaska Native villages as distinct cultural and governmental entities.

Broadband capacity is critical to the BIE as its IT infrastructure includes the wide area network and general support system used by BIE-funded schools. This infrastructure supports the ability to provide standards-based connectivity, security, content delivery, web services, distance learning, wireless communication, email access, and education application access for all BIE

school networks.

BIE's Education IT funding also provides support for the BIE student information data system. The system provides school management software, training, and system support for management of student academic program data. This centralized database manages records such as enrollment, attendance, behavior, class schedules, grades, assessments, teacher grade books, health and immunization data, special education needs, transcripts, parent contact information, and student demographics for all students in BIE-funded schools.

Increasing Bandwidth in BIE Schools

Broadband Internet connections make it possible for educators and students to access innovative resources, and collaborate with experts worldwide. Starting in school year 2014-2015, online testing requirements have strained the capacity of BIE's Education Native American II (ENAN II) network. As of March 31, 2018, 73 BIE schools served by ENAN II have bandwidth that meets the definition of broadband. The FCC uses a speed benchmark of 25 Mbps download/3 Mbps upload (25 Mbps/3 Mbps) as the minimum requirement for the definition of broadband. Additionally, to ensure sufficient broadband access for K-12 learning and improved school operations, the SETDA has provided minimum bandwidth targets for connectivity; they are:

| Broadband Access for Teaching, Learning and School Operations | 2014-2015 School Year Target | 2017-2018 School Year Target |
|--|--|---|
| An external Internet connection to the Internet Service provider (ISP) | At least 100 Mbps per 1,000 students/staff | At least 1 Gbps per 1,000 students/staff |
| Internal wide area network (WAN) connections from the district to each school and among schools within the district | At least 1 Gbps per 1,000 students/staff | At least 10 Gbps per 1,000 students/staff |

However, due to geographical isolation and because many BIE schools have less than 1,000 students and staff, BIE created an interim goal of 10 Mbps per 100 students and staff to track progress as it works to implement the full State Education Technology Directors Association (SETDA) standard at all BIE schools. Challenges in providing broadband access to BIE schools include the remote locations of the schools, limited carriers available in those remote locations. These challenges often make bandwidth upgrades last more than a year.

Inter-Agency Coordination

In addition to working with the General Services Administration (GSA) and the Federal Communication Commission (FCC) on contract modifications to improve bandwidth, the BIE has participated in the FCC's E-rate program since its inception. This has allowed the BIE to receive funding from the E-rate program for the last several years. This funding, in the form of credits on the invoice, is used to extend the purchasing power of the flat BIE circuit budget and add additional bandwidth to some BIE schools.

| E-rate Tracking | | | | |
|------------------------|---------------------|---------------------|---------------------|-------------------|
| Year | Request | Commitment | Disbursed | Percentage |
| 2009 | \$6,507,201 | \$1,734,259 | \$82,460 | 4.80% |
| 2010 | \$1,062,793 | \$2,557,116 | \$2,443,016 | 95.50% |
| 2011 | \$4,579,002 | \$3,553,814 | \$1,660,001 | 46.70% |
| 2012 | \$1,683,275 | \$1,605,824 | \$1,576,180 | 98.20% |
| 2013 | \$2,890,811 | \$2,802,110 | \$2,652,078 | 94.60% |
| 2014 | \$4,306,763 | \$4,318,486 | \$3,372,048 | 78.10% |
| 2015 | \$4,808,091 | \$4,705,952 | \$4,705,952 | 100.00% |
| 2016 | \$22,091,079 | \$22,091,079 | \$2,745,132 | 12.40% |
| 2017 | \$14,419,348 | \$12,085,686 | | |
| 2018 | \$13,057,938 | | | |
| Total | \$47,929,015 | \$43,368,640 | \$19,236,868 | 44.40% |

Related Resources

- [Executive Order 13821](#)
- [American Broadband Initiative Milestones Report](#)
- [Department of the Interior Broadband Initiative](#)
- [DOI Connectivity in Rural American Report](#)
- Bureau of Indian Affairs Broadband Initiative (Link to TBD)
- [BIE Contact Us](#)