

govCIO OUTLOOK

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IN MY OPINION

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Connectivity Issue

Solved for Arkansas

By Mark Myers, CTO & Director, State of Arkansas



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common theme exists in rural communities across the nation; a lack of access to high-speed Internet service. Broadband has become an essential element in the education, economic development and job creation landscape. In July 2015, President Obama said,

“The Internet is not a luxury, it’s a necessity,” and added that the people who “could benefit the most from the latest technology are the least likely to have it.”

Arkansas is capitalizing on an unprecedented opportunity to excel to the national upper tier in high speed broadband connectivity to its K-12 schools, charter schools and education cooperatives while simultaneously expanding rural broadband availability to the most sparsely populated areas of the state.

A thorough analysis of the K-12 broadband landscape was conducted for the purpose of developing a plan to amplify educational bandwidth to a level meeting and ultimately exceeding the current ConnectED and FCC Internet access target of 100 kbps/student by the summer of 2015 and the long-term target of 1 Mbps/student by the summer of 2018.

The good news from the analysis was that 58 percent of Arkansas districts already met the current ConnectED 100 kbps/student target (versus 37 percent nationally). However, Arkansas is a very rural state with an extremely diverse topographical and geographical landscape. A high percentage of the state’s school districts are located in very rural areas. A report on broadband availability by the FCC showed that 84 percent of Arkansans in rural areas have no access to 25 Mbps/3 Mbps broadband.

To address these challenges, the state considered two main options for expanding broadband to all school districts across the state regardless of topographical obstacles and geographical distances 1) direct Internet procured independently by each district from providers; or 2) upgrade the Arkansas Public School Computer Network (APSCN) to a statewide aggregation network.



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After weighing the costs and benefits of these options, Governor Hutchinson determined a statewide aggregation network to be the fastest and most cost effective solution for Arkansas’s schools to meet the ConnectED Internet access goals and directed the Arkansas Department of Information Systems in partnership with the Department of Education to execute the two-year project.

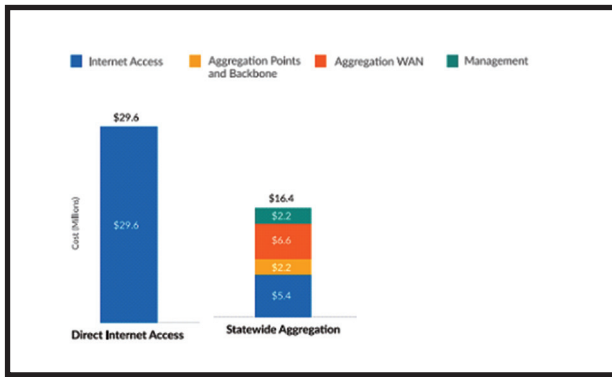


Image Source: Education Super Highway

In addition to the substantial cost savings of a statewide aggregation network compared to direct Internet, upgrading APSCN will achieve several other objectives:

1. School districts will receive a minimum of 200kbps/per user of Arkansas Department of Education (ADE) funded bandwidth;
2. The bandwidth will be E-rate eligible and will maximize the impact of funding Arkansas will be eligible to receive under the E-rate program (about \$30 million)
3. APSCN will meet ConnectED, FCC and SETDA Internet access targets;
4. It will be structured in a way that remains cost effective as demand continues to grow beyond 2018;
5. It will lower the cost of Internet access for school districts
6. It can be accomplished within ADE's current \$13 million budget; and,
7. DIS will manage network security, support and content filtering.

Ensuring high levels of security is a critical component to the APSCN upgrade. Our K-12 stakeholders should have complete confidence that the content filtering and strong security mechanisms in place will enable students to access online content relevant to their education in a safe and secure

manner. Essential to this is the deployment of standardized enterprise level security tools. Having a common language and common components in K-12 campuses across the state will elevate the ability for districts to collaborate and share information with each other. The benefit of having the same view of the security landscape will enable technology coordinators to identify and communicate potential threats more quickly resulting in a more rapid response for mitigation. Districts will be able to exchange an unprecedented level of knowledge that will have a positive long term, lasting impact.

The same broadband availability report by the FCC said that residents in states with the lowest population density are 10 times more likely to lack access to broadband than those residing in the states with the highest density. The overall vision for upgrading APSCN is not only to give Arkansas students access to technology tools for a 21st century education, but to establish schools as anchor tenants with an eye toward increasing the demand for broadband in sparsely populated areas of the state beyond education. The state recognizes that affordable broadband can be leveraged as a building block for vibrant communities to help ensure that no community, regardless of how rural, gets left behind due to a lack of access.

Some of the state's rural communities are large enough to consolidate and expand the scope of a school as anchor tenant to include health care facilities and other government agencies. In communities where the state is the anchor tenant, businesses and homes in the same local community could potentially have access to up to 10 gigs of broadband. The expectation is there will be enough increased demand

to spur greater infrastructure investment in broadband by local, regional or national telecommunications providers.

Because the Internet has become such a crucial factor in economics, health care and civic life, it is now considered to be a necessity instead of a luxury and is on the cusp of being designated as a utility by the federal government. Beginning with the APSCN upgrade,

Arkansas has set a course toward broadening the range of learning opportunities afforded by high speed broadband to create a better-educated workforce, bring more jobs to the state and help Arkansas retain its best and brightest talent. **GC**

