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**Utah Governor's Office of
Economic Development**

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Utah Broadband Plan

October 2014





STATE OF UTAH

OFFICE OF THE GOVERNOR
SALT LAKE CITY, UTAH
84114-2220

GARY R. HERBERT
GOVERNOR

SPENCER J. COX
LIEUTENANT GOVERNOR



Dear Reader,

Utah is home to one of the youngest, most technologically savvy and educated populations in the United States. Coupled with the state's growing reputation as a premier global destination for business and quality of life, Utah must capitalize on its competitive advantages through strategic coordination and use of broadband technologies and infrastructure.

The Utah Broadband Plan is part of a five-year statewide Utah Broadband Project, which is a joint effort between the Utah Governor's Office of Economic Development, the Public Service Commission, and the Department of Technology Services' Automated Geographic Reference Center. Since 2010, the Utah Broadband Project has developed a statewide map of available broadband services, conducted research on broadband adoption and use, and coordinated with public and private partners to implement best practices for broadband deployment in the state. This plan not only highlights these successes but also outlines strategic goals and initiatives to help Utah continue to be a leader in broadband deployment.

In the upcoming years, broadband access will become increasingly important. Utah's commitment to plan and prepare for the future will give the state a competitive advantage to support its businesses. It will also ensure Utah remains a leader in extending affordable, reliable broadband services to all residents.

Sincerely,

Gary R. Herbert
Governor

Utah Broadband Project Team



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WELLS FARGO

Executive Summary

Why is Broadband Development Important?

- Attracts businesses
- Higher graduation rates
- Higher paying jobs
- Diversifies exports
- Global competitiveness
- Increases revenues

Utah Broadband Office Key Initiatives



Convene Partners

Continue the Utah Broadband Advisory Council to develop strategies to deploy broadband infrastructure in Utah.



Help Communities Increase Speeds

Encourage broadband deployment in communities throughout Utah by utilizing best practices.



Connect Health Care and First Responders

Work with strategic partners to connect Utah's health care facilities and establish a public safety network.



Market Cutting-Edge Infrastructure

Maintain the existing Utah Broadband Map, along with developing a commercial broadband map to market infrastructure.



Identify Funding and Partnership Models

Identify underserved areas and work with public entities and broadband providers to increase statewide coverage.



Link Rural Utah to a Global Marketplace

Develop workshops to help rural businesses/cities create websites, improve existing sites or develop other types of online presences.



Advocate for Utah on a National Stage

Help Utah continue to be a leader in adoption and deployment by assisting and educating state leadership on federal broadband issues.



Give Utah Students the Tools to Succeed

Connect Utah's schools and libraries to broadband networks to provide quality educational resources.



Connect Utah's Native American Tribes

Work with public entities and providers to increase and improve broadband access for tribes and tribal centers.

Expected Program Outcomes



200 new rural business or city websites every year



High-speed connections to all public schools, libraries and tribal centers by 2019



Access to commercial broadband data for business recruitment by 2016



Increased utilization of federal funds for broadband infrastructure



Increased utilization of best practices for broadband deployment



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Introduction

According to the United States Telecom Association, broadband companies have invested \$1.2 trillion since 1996 into the U.S. economy to modernize and otherwise enhance infrastructure and services. Conservative estimates indicate that the telecommunications industry employs approximately 850,000 workers nationwide.

As broadband is an increasingly important service, it is in the interest of both the private and public sectors that the market forces at work are 1) well-informed and efficient, and 2) conscious of the societal needs and expectations for extending these services into markets that may present greater returns on investment. For these two important reasons, it is critical that industry and government representatives proactively work together to help create and facilitate broadband connectivity for the state.

In 2010, the State of Utah received a five-year grant through the National Telecommunications and Information Administration (NTIA) to develop a statewide map of available broadband services and a plan to increase broadband

adoption and deployment in the state. The state formed a project team including staff members from the Governor's Office of Economic Development (GOED), the Public Service Commission (PSC) and the Department of Technology Services' Automated Geographic Reference Center (AGRC) to accomplish this task.

Utah has become a leader in the implementation of this program resulting in increased cost-savings to the private sector, local and state government and consumers throughout the state. The Utah Broadband Project has also become an asset for enhanced business recruitment and economic development, coordination and collaboration of public and private sector entities and a driver of best practices in the industry.

Federal funding for the Utah Broadband Project will terminate in December of 2014. This office recommends that in lieu of federal funding, the State of Utah fund the Utah Broadband Project through an ongoing appropriation to GOED. The following narrative highlights the key components and accomplishments of the project to date, as well as a proposal to continue the Utah Broadband Project as a program within GOED to continue to support these efforts.



Utah Office of Tourism

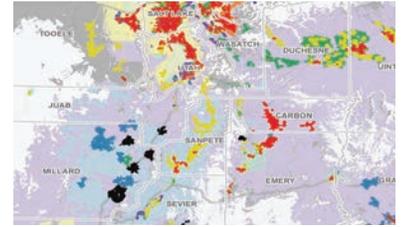




Program Accomplishments To Date

Launched Utah's First Interactive Broadband Map

- Allows users to identify broadband service by speed and technology type in all areas of the state
- Over 50 providers have participated in the mapping efforts



Formed the Utah Broadband Advisory Council

- Established GOED's role as a neutral facilitator in statewide broadband planning
- Broadband providers and public/private stakeholders meet regularly to discuss strategies to increase broadband deployment
- Published their findings in the Utah Broadband Advisory Council Report



Completed an Extensive Regional Broadband Planning Effort

- Formed Broadband Planning Councils within each Association of Governments (AOGs) region to coordinate local deployment strategies
- Increased broadband planning coordination throughout the state



Completed Two Mobile Broadband Drive Tests

- Enlisted a contractor to drive 6,000 miles of federal, state, and county roads to verify mobile broadband coverage
- Compared drive test data to provider-submitted data to ensure accuracy



Completed Statewide Surveys to Determine Adoption Trends

- Conducted a statewide survey that determined rural and urban Utah residents have access to and utilize broadband at similar rates
- Surveyed nonadopters to understand barriers to Internet usage



Hosted a Statewide Broadband Tech Summit

- Presented strategies to improve broadband deployment, support economic development, and integrate technology into industry sectors
- Over 250 participants attended the inaugural summit





Broadband Matters to State Leadership

How will broadband power Utah's Economy?

Utah is already an economic leader because of its commitment to broadband infrastructure. Broadband strengthens and grows Utah's businesses by allowing them to be nationally and internationally competitive, promoting innovation and entrepreneurship, attracting investment and supporting the development of the workforce of the future. As the state looks toward the next frontier of economic development, the relationship between broadband and other priorities will continue to narrow. Broadband is a key component in accomplishing the Governor's four objectives for economic growth, which are outlined below.

Objective 1: Strengthen and Grow Existing Utah Businesses, both Urban and Rural

In Utah's Economic Development Plan, Governor Gary R. Herbert has made broadband a priority to "increase business opportunities in rural Utah by identifying unserved and underserved high-speed Internet service areas and by developing a plan to extend broadband service statewide." The success of Utah's urban and rural businesses and the ability to attract new businesses depends on a reliable and robust broadband infrastructure. Broadband increases business efficiency, opens new markets, promotes entrepreneurship and enhances economic growth.

Objective 2: Increase Innovation, Entrepreneurship and Investment

Broadband is a key driver for innovation, entrepreneurship and attracting new investments in Utah's economy. Utah's information technology (IT) sector is built on these factors with IT companies such as Adobe and eBay calling Utah home, due in part to the state's dependable broadband infrastructure. Promoting broadband deployment must continue to be a priority in Utah in order to maintain this growth and stimulate innovation, entrepreneurship and investment in other sectors in order to further economic development.

Objective 3: Increase National and International Business

In a globally competitive world, broadband levels the playing field. Through broadband, Utah's communities and businesses, both urban and rural, have changed the way they communicate, learn and transact business, and as a result, they are able to compete more efficiently in markets throughout the world. Conversely, those from far-flung locales can communicate and more efficiently work with Utah communities and businesses. The speed and reliability of broadband infrastructure is critical to allow a business in Scipio to compete with a business in Shanghai.

Objective 4: Prioritize Education to Develop the Workforce of the Future

Robust broadband produces and attracts a highly-educated workforce that supports a strong economy. Utah has the youngest population in the country, making them more likely to embrace new technologies. Broadband can enable improvements in public education through e-learning and online courses. It also facilitates the flow of information helping teachers, parents, schools and other organizations make better decisions tied to each student's needs and abilities. Specifically, an increasing trend towards one-to-one computing initiatives in schools and a push to further integrate technology into classrooms will be heavily reliant on broadband access and capacity.

Increasing broadband access has also been shown to improve academic performance. A study, "Home Computers and Educational Outcomes," by the Board of Governors of the Federal Reserve System has determined that high school graduation rates for students with home broadband access are 6 to 8 percent higher than students without access. Additionally, Utah has made becoming a top-tier state for science, technology, engineering and math (STEM)-related fields a top priority. In 2013, the state established the STEM Action Center which seeks out best practices for teaching STEM-related subjects and implements them into Utah's schools.

Prosperity 2020, a business-led initiative to enhance education in Utah has made it a priority to ensure that by 2020, 66 percent of Utahns will have received post-secondary certificates or degrees. To achieve this goal, all Utahns will need access to college level courses in the communities where they live, making high-speed broadband in rural Utah a high priority.



Convene Partners to Increase Deployment

Continue the Utah Broadband Advisory Council

Learn Best Practices From the Experts - In 2011, the Utah Broadband Project convened the Utah Broadband Advisory Council. This was the first time that broadband providers had the opportunity to meet together with state and local government officials and their industry competitors to reach a consensus on the most efficient ways to deploy broadband infrastructure in Utah. The Utah Broadband Advisory Council quickly determined that when broadband providers coordinate and collaborate with government entities, broadband infrastructure can be deployed more efficiently and inexpensively.

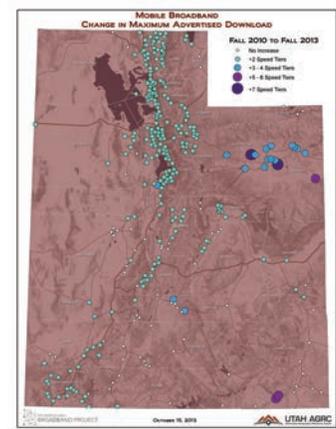
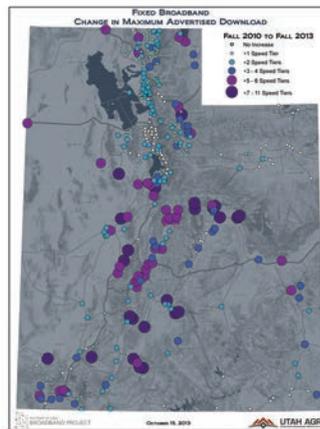
Agree Upon the Current Landscape - Prior to the launch of the Utah Broadband Project, the PSC and other key stakeholders had extremely limited information regarding broadband coverage and performance because providers were hesitant to share this information unilaterally or with a regulatory agency. In an effort to build a positive, mutually-beneficial relationship, the Utah Broadband Project was designed from its inception, as a public/private partnership grounded on voluntary, but actively-facilitated information sharing, especially in regard to the overall broadband availability landscape. The operating principle was that broadband deployment could be greatly enhanced through a well-informed market.

Engage Local Communities in the Process - The broadband plans of the Wasatch Front Regional Council and Mountainland AOG, which represent the most populated areas of the state, both stressed the importance of the Utah Broadband Project and the Utah Broadband Advisory Council and recommended that these efforts continue. The Mountainland Association of Governments recommended increasing local governmental participation in the Advisory Council and the Wasatch Front Regional Council recommended that the Advisory Council continue in order to improve communication among broadband providers throughout the state, with the goal of promoting best practices for infrastructure deployment.

Work Toward Common Goals - If state coordination ceases, these stakeholders may revert back to an industry climate where broadband is deployed without a full picture of where additional resources are truly valued and stakeholders will

Since 2010

108 cities have increased their highest available speed to over 1 Gigabit



Courtesy of AGRC

have few opportunities to work towards common goals. The cost of maintaining a coordinating body is anticipated to be much lower than the cost of creating and maintaining a regulatory body, particularly since the start-up costs of creating the Utah Broadband Project have already been financed through the original federal grant.

Create a Business-Friendly Environment - Although broadband is becoming more essential, the project team recommends that regulating broadband like other utilities, such as water, natural gas and electricity, is not the ideal model to achieve optimal industry growth. Historically, broadband has been less regulated than traditional copper networks, which has facilitated immense industry growth. Creating a regulatory environment would be costly and could result in undesired impacts including constraining industry growth. The recommended approach is to continue the Utah Broadband Project as a coordinating body to work with broadband providers and public and private stakeholders. This is an unprecedented opportunity for a government entity to support the business community through facilitating the coordination of efforts, and thereby utilizing resources and investment more efficiently.



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UTA TRAX

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TRAX TURNS 10! 12-4-2009
110 million riders and counting.

UTA TRAX

Market Utah's Cutting-Edge Infrastructure

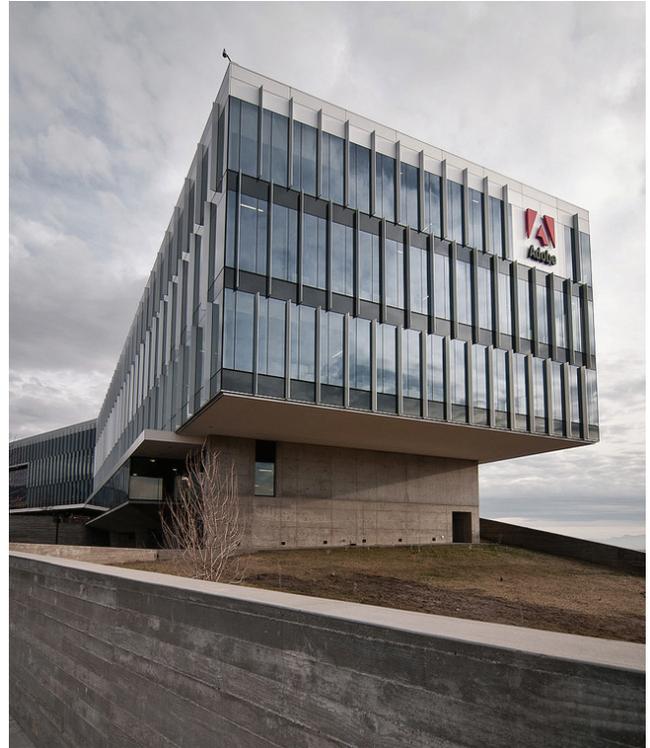
Urban and Rural Utah Communities are Open for Business

Attract More Businesses to Utah - Utah's global competitiveness, particularly within the state's targeted business clusters, relies on the quality, access and speed of broadband infrastructure. These clusters, which include aerospace and defense, financial services, IT and software development, outdoor recreation, life sciences and energy development, are utilizing technology at an accelerated rate. The clusters drive Utah's economy forward by increasing exports and encouraging foreign direct investment. A robust and effective broadband network helps Utah businesses continue to increase their market share and compete globally.

Launch the Nation's First Commercial Broadband Map - In addition to maintaining the existing Utah Broadband Map which allows consumers and broadband providers to access residential broadband data, the Utah Broadband Project is working with providers to make commercial broadband data more accessible to support corporate recruitment and business development in coordination with GOED's Corporate Recruitment and Incentives Team and the Economic Development Corporation of Utah (EDCUtah).

The project team frequently receives requests from businesses, communities and economic developers requesting information on the availability of high-speed services. The team fulfills these requests by working with providers to gather this information on a case-by-case basis; however, a robust commercial data set would minimize the time required to fulfill these requests and would give the state a competitive advantage in recruiting businesses.

Teach Local Communities to Market Existing Infrastructure - Once the commercial broadband map is completed, businesses interested in relocating or expanding in Utah could be given a provider list for any location in the state. All seven of the Regional Broadband Plans published by Utah's AOGs in 2014 recommended increasing economic development by tapping into the robust services that exist in their communities. Creating a tool to display this data and having it readily available will give Utah a competitive advantage over other states in recruiting broadband dependent businesses.



Courtesy of Adobe

The Place for Business

Many rural Utah communities have speeds as fast as their urban counterparts

Providing information on commercial broadband access is critical to the economic development of both rural and urban communities.

The project team frequently works with cities to identify the broadband resources available, so communities can attract businesses into their areas and increase access to existing businesses. Without the Utah Broadband Project, many of these communities would be unaware of the broadband resources available to them.





Advocate for Utah on the National Stage

Help Utah Continue to be a Leader in Adoption and Deployment

Serve as a State Policy Advisor - The Utah Broadband Project provides a premier resource for data and information on broadband-related public policy issues, especially in relation to the Federal Communications Commission (FCC), for the Governor, the State Legislature and local officials. Providing this information to state leadership will enable the state to maintain a competitive advantage by encouraging policies that will further advance deployment of broadband infrastructure and broadband adoption in Utah.

Encourage Federal Policies that will Improve Utah's Infrastructure - It is anticipated that many federal programs and policies will see major updates and changes over the next few years, which will have major impacts on Utah's broadband providers, stakeholders and communities. As policy advisors, the project team will play a fundamental role in educating state and national leadership on many federal issues, including the following:

- Educate state leadership about the impacts that federal changes to the Universal Service Fund (USF) will have on broadband providers in Utah.
- Work with the Utah Education and Telehealth Network (UETN) to educate state leadership on the modernization of the E-Rate program, which provides support for high-speed broadband access to schools and libraries. The project team should also continue to provide feedback as changes are made to the program.
- Educate state leadership on the progression of recent federal legislation to establish a Nationwide Public Safety Broadband Network (NPSBN) and coordinate with Utah's designee on the opt-in or opt-out plans for the network.
- Provide input on future FCC initiatives, including the Rural Broadband Experiments, so that programs meet the needs of Utah's stakeholders.

- Work with federal and state agencies, including the Bureau of Land Management, U.S. Forest Service, National Park Service and the Utah Department of Transportation (UDOT), to develop a multi-agency strategy to increase broadband deployment. The state should encourage federal agencies to comply with President Obama's Executive Order No. 13616, "Accelerating Broadband Infrastructure Deployment," which mandates these agencies to streamline permitting for both wired and wireless broadband infrastructure deployment on federal lands, buildings, rights-of-way and highways. The state should also encourage these agencies to prioritize telecommunications siting and permitting programs, providing sufficient staffing to minimize processing times.

Verify the Accuracy of Broadband Data for Funding Opportunities - Beginning in the fall of 2014, broadband data will be collected directly by the FCC and a new National Broadband Map will be developed. This data will be used to determine priorities for which areas of the country receive federal funding. In the absence of continued funding, there will be no entity to verify Utah's data or work with providers or the FCC to address any shortcomings. Continuing a state-led data verification effort to work with the FCC will ensure that data collection will meet the needs of Utah's stakeholders. Balancing public and private interests will be an essential component of continuing the Utah Broadband Project beyond 2014.

Continue to Make Broadband Data Transparent and Accessible - The project team will also continue the residential Utah Broadband Map until the state can verify that the new FCC-led data collection is representative and that its interface will meet Utah's ongoing information needs. The project team may decide to take FCC-collected data and display it using the current interactive map interface. The project team may also continue to work with new and existing providers to facilitate accurate data submissions.

National Broadband Policies are Constantly Changing

The FCC regularly asks states for comments and guidance on funding and programs that facilitate broadband deployment



Sophia DiCaro



Help Communities Increase Speeds

Implement Strategies that Work

Identify Underserved Communities - The Utah Broadband Project will help strengthen Utah's competitive advantage by helping communities to encourage broadband deployment by utilizing best practices, resulting in a lower cost of infrastructure, particularly in communities with maximum available speeds below 10 Mbps.

Promote Cost-Saving Best Practices - Just as the Utah Broadband Project team has taken on the role of advocating for communities and working with providers to address identified broadband needs, cities have also contacted the Utah Broadband Project to identify best practices for incentivizing deployment. The project team has discovered that implementing best practices in local communities can help providers deploy infrastructure at much lower costs, thus encouraging investment. Some of these best practices include:

- Creating an electronic list of broadband providers to notify them of construction projects where broadband infrastructure can be installed, coordinating efforts and minimizing construction costs.
- Implementing a practice of laying empty conduit during road construction projects, which would allow multiple providers to install infrastructure at a much lower cost.
- Encouraging cities and counties to adopt ordinances that promote deployment of wireless infrastructures to increase both mobile and fixed wireless broadband access.
- Requiring developers to employ open trench periods or installing conduit to connect new developments, allowing multiple providers to service communities and thus encouraging a more competitive marketplace.

The Utah Broadband Project recently completed a Regional Broadband Planning effort to work with communities to research these best practices. Most of these communities were unaware of these practices and the associated cost savings. All of the regional plans recommended increasing coordination and cooperation to implement best practices such as developing zoning and notification requirements, developing dig-once policies and incorporating future broadband deployment and



Utah Office of Tourism

Best Practices Save Money

A St. George broadband provider saved 50 percent in infrastructure costs partnering with the city and using best practices

planning into their City or County General Plans. It is unlikely that these communities will implement these practices in the future without the education and support provided by the project team.

Encourage Investment in Underserved Communities - Utah is known for its low energy costs and its ability to attract business investment. The Utah Broadband Project is working with communities to create a business friendly environment, which lowers the cost of installing infrastructure and enhances the quality and speed of broadband throughout the state.

The project team will continue to work with local communities to encourage the use of best practices to support broadband deployment, particularly in underserved areas. The team hopes these practices will encourage both local and national broadband providers to invest in Utah's communities. For example, a major Internet provider may choose to install best-of-class infrastructure to 200 homes in Utah rather than in another state because the best practices that have been implemented have lowered construction costs. The project team also feels that implementing these policies is a sustainable model for broadband deployment because it relies on best practices rather than the inflow of federal dollars to support broadband deployment.





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S CONGENIALITY

Identify Funding and Partnership Models

Link Communities with the Resources they Need

Link Communities with Funding Sources - Federal funding opportunities have been important to broadband deployment in Utah. When these opportunities are announced, such as the United States Department of Agriculture's (USDA) Community Connect Fund, which provides funding to rural communities where broadband service is not available, the project team uses its data to identify communities, providers, or other stakeholders that would be eligible and encourages them to submit applications.

In 2014, the FCC announced the development of a new program, the Rural Broadband Experiments, which will provide \$100 million for infrastructure in rural communities. The project team will work with broadband providers in eligible communities throughout the state to encourage them to apply for this funding. In addition to federal resources, the project team will also work with programs such as US Ignite, the Schools, Health and Libraries Broadband Coalition (SHLB) and the First Responder Network Authority (FirstNet) to identify funding opportunities to develop and deploy broadband infrastructure and technologies.

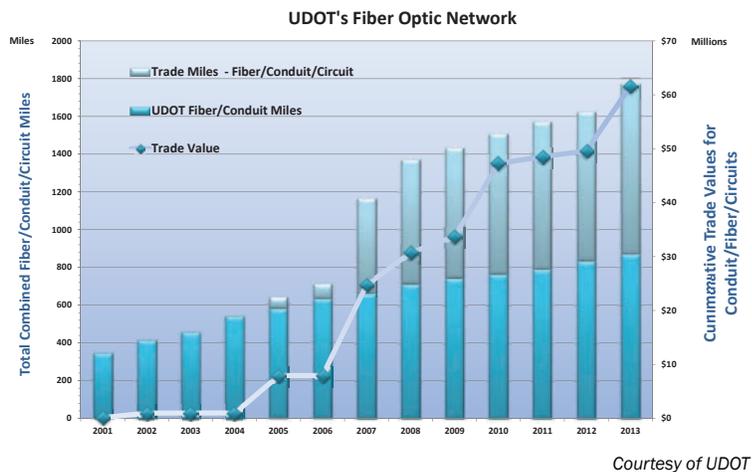
Work with Public Entities and Providers to Increase Statewide Coverage - Collaboration between public and private partners will be vital to deploying broadband infrastructure throughout Utah at a reduced cost. UDOT has implemented a program that is an excellent example of public and private partners working together to deploy infrastructure and save money.

UDOT has been instrumental in facilitating the expansion of broadband infrastructure into remote areas of the state, through its own efforts to expand the agency's fiber footprint and through installing and trading access to fiber conduit.

UDOT helps facilitate the deployment of broadband infrastructure during construction projects providing substantial savings to all parties involved. UDOT has been facilitating cooperative fiber and conduit trades with broadband providers and has a best practice of laying fiber conduit during road construction

Since 2002

UDOT has been facilitating fiber and conduit trades with broadband providers, resulting in real cost-savings for Utah taxpayers



projects, where it makes sense.

These practices have extensively expanded the state's communications infrastructure without major capital investment, resulting in real cost-savings for Utah taxpayers (see the graph above). The UDOT model has given the state a competitive advantage by enabling the development of next-generation broadband services in both urban and rural areas at a reduced cost.

Not only should the Utah Broadband Project work with UDOT to promote these achievements, the project team should assist in these efforts by identifying underserved areas of the state and should work with providers to plan infrastructure installations in collaboration with the agency's road construction schedules.



Give Utah Students the Tools to Succeed

Continue to Connect Utah's Schools and Libraries to Broadband Networks to Provide Quality Educational Resources

Support and Partner with UETN to Continue Connecting Schools and Libraries - The Utah Education and Telehealth Network (UETN) consortium was created by the Utah State Legislature effective in May 2014 by merging the Utah Education Network (UEN) and the Utah Telehealth Network (UTN). UETN connects Utah school districts, libraries, government facilities, higher education institutions and health care facilities across the State of Utah. UETN is a model public-private partnership and works with private and independent telecommunications service providers to perform its mission. These public-private partnerships have provided fiber infrastructure and broadband service expansion into urban and rural high-cost areas that typically would not be possible.

Schools connecting to UETN may receive an average discount of 72 percent, and libraries may receive an average discount of 68 percent as a result of UETN's participation in the E-Rate program for broadband services.

Over 95 percent of Utah's public schools currently have scalable Gigabit Ethernet connections through UETN. There are a small number of public charter schools and libraries that do not currently connect to UETN. The project would play a key role in reaching out to these institutions and helping them work with UETN to obtain broadband connections at a discounted rate.

Major Accomplishments for UETN in 2013-2014

- UETN completed a 10 Gigabit Wide-Area Network backbone to the St. George area providing a full north-south state ring. UETN also provided additional network capacity to districts and K-12 schools to meet increased demand.
- UETN and its telecommunications partners have upgraded major network segments with better, more scalable "future proof" technology to meet anticipated capacity and growth needs.
- UETN held NetSafe Utah presentations and training workshops for kids, teens, parents, teachers and administrators on Internet safety and appropriate use.
- UETN received all Universal Service Administrative Company (USAC) E-Rate Fund Year 2014 funding commitments by July 1, 2014 for network and Internet services costs — a major milestone compared to previous funding years and timeframes for approvals.



72 Percent

The average discount schools can receive by working with UETN to secure an E-Rate Discount

- UETN obtained a Community Impact Board (CIB) grant to replace and upgrade the UETN digital broadband microwave system for K-12 schools and higher education institutions in Daggett County and San Juan County.

Increase Wireless Infrastructure in Schools - While most of Utah's schools enjoy Gigabit connections to the facility, a growing trend toward educational one-to-one computing initiatives will require more sophisticated wireless infrastructure and UETN network bandwidth distribution within Utah's schools and libraries. The Utah Broadband Project should work with UETN, the STEM Action Center, the Utah State Office of Education, public school districts, the Utah State Library, the Utah Division of Indian Affairs and private sector partners to ensure that Utah's schools, libraries and tribal centers have the connectivity they need. The project team will also work with the FCC and the Utah State Legislature to suggest funding models to keep pace with this growing need.

Raising Awareness and Coordination - The Utah Broadband Project is vital to raising awareness and facilitating coordination to enhance services and cost savings, particularly in rural areas where providers are unlikely to deploy broadband without the discounts these programs provide. Collaborating with the partners listed above, this initiative will help improve rural broadband access by helping schools, libraries and tribal centers to obtain scalable high-speed broadband services and develop sustainable critical broadband infrastructure for their communities.



Francis Peak, Steve Proctor

Connect Health Care Sites and First Responders

Connectivity Reduces Costs and Saves Lives

Support and Partner with UETN to Continue Connecting Health Care Sites - In addition to schools and libraries, UETN also connects hospitals, clinics and health departments into a secure health care network. Connecting rural communities is often challenging because of the costs associated with deploying infrastructure across large distances. Through UETN's partnership with telecommunications providers and participation in USAC Rural Health Care Pilot Program, eligible healthcare facilities have received broadband services at a discounted rate of 85 percent. Moving forward, certain health care facilities will be eligible for 65 percent discounts through USAC's Healthcare Connect Fund. Connecting these institutions is often a vital first step in introducing high-speed broadband service into rural areas.

This public/private partnership model will help Utah's health care providers service residents in both urban and rural communities. UETN's higher broadband speeds have allowed for the widespread adoption and use of electronic health records and other information technology by health care facilities throughout Utah. The network provides the platform for the secure exchange of clinical health information among health care providers and facilitates the deployment of telehealth and telemedicine. As access expands, patients will have more options to meet with their doctors remotely, which is critical for residents with mobility issues. The Utah Broadband Project will work with UETN to identify institutions that have not leveraged federal funding and work with partners to increase the utilization of these programs and services.

Partner with Utah's FirstNet Team to Increase Access in Rural Utah - Broadband infrastructure is becoming increasingly important to public safety. Transitioning the current voice-based emergency services system to a standardized IP-based system will facilitate interoperability between agencies to allow effective public safety communications and coordination on statewide and national levels.

In 2012, the First Responder Network Authority (FirstNet) was established to plan, construct, operate and manage a Nationwide Public Safety Broadband Network (NPSBN). The NPSBN



Transforming Public Safety

As technologies advance, first responders will be able to arrive on scene with maps, building plans and other vital information

will be a 4G LTE data only broadband network dedicated to public safety use. Administered by NTIA, Utah received \$2.2 million dollars through the State and Local Implementation Grant Program (SLIGP). The grant will be used to develop a strategic plan and to perform outreach and education to public safety stakeholders throughout the State of Utah to ensure the network meets the connectivity and capacity needs of Utah's first responders.

The Utah Broadband Project has already collected extensive data on broadband infrastructure that may be used to plan the NPSBN infrastructure throughout Utah. The project team will collaborate with FirstNet to provide input on the plan, promote its efforts and encourage a network infrastructure that increases coverage in rural Utah, particularly in high-volume tourist areas that currently lack coverage. These efforts will ensure the safety of Utahns and visitors as they work, live and play.



Link Rural Utah to a Global Marketplace

Ensure Rural Utah is both Connected and Competitive

Help Rural Businesses Compete in a Global Marketplace - “The success of Utah’s urban and rural businesses, and the attraction of new business relies on a world-class digital infrastructure,” said Val Hale, executive director of the Governor’s Office of Economic Development. “As one of the best states for business, we need to make a commitment to robust and accessible broadband networks in order for Utah’s business to compete in a global marketplace.”

Broadband can provide access to regional, national and worldwide markets, enhancing the opportunities for current businesses, while providing the infrastructure to attract entrepreneurs, a highly-skilled workforce and technology-based companies that would have not otherwise considered locating in particular areas of the state.

Establish a Program to Help Businesses and Cities Get Online

According to Fleishman-Hillard’s 2012 Digital Influence Index, 89 percent of consumers use Internet search engines to make purchasing decisions. Businesses that do not have an online presence are missing out on many customers who are not able to access information on their products and services.

Currently, only a third of Utah’s rural businesses have a website. The Utah Broadband Project will work with GOED’s Rural Development Office, the Businesses Expansion and Retention (BEAR) Program, Utah’s Small Business Development Centers and private partners to develop a series of workshops to help rural Utah businesses create a website or other online presence. These workshops may be conducted both in rural areas and as a track in a broader annual summit focused on broadband. This initiative will help local entrepreneurs and businesses expand and market their goods and services both domestically and internationally. This effort is vital to increasing revenues and creating jobs.

The State of Utah has been heavily focused on providing online information to Utah residents. Utah.gov currently offers over 1000 online services. Websites are a vital tool for govern-



Out of Bounds Creative

89 percent

of consumers use search engines to make purchasing decisions

ments to inform citizens, increase transparency and encourage public participation. Currently, approximately 24 percent of Utah’s cities do not have a website. The project team plans to invite these cities to participate in the website workshops in order to ensure that all of Utah’s citizens can access vital information online.

Study the Impacts of Business Connectivity in Rural Utah

Once a program is established to help rural businesses get online, the project team will conduct a study to determine how connectivity impacts revenues and business growth. The project team will collect data on what types of online services are used and the resulting impacts. This data will be vital in refining the program to continue to meet the needs of these businesses.





Support Utah's Native American Tribes

Connect Utah's Tribes with Resources to Succeed

Increase Broadband Access to Utah's Tribes - Many of Utah's tribal regions are very difficult and expensive areas to serve with broadband infrastructure and access due to their remote locations. This can lead to slower available speeds, poor reliability and lower adoption rates. Tribal regions also have unique geographical and economic challenges which make broadband deployment and adoption difficult.

However, it should be noted that tribal areas vary in the level and type of services available. Some tribes have very little coverage, while others have access to some high speed fiber optic, DSL and 3G/4G wireless services. Please consult broadband.utah.gov for information on exact coverage levels in specific locations.

In accordance with the broader initiative to work with public entities and providers to increase statewide coverage, the Utah Broadband Project will seek coordination with the Utah Division of Indian Affairs and representatives of Utah's tribes to help improve broadband access for tribes and tribal centers, in order to enhance overall coverage and connectivity in these regions. This initiative will seek to empower and enable Utah's tribal communities with the same opportunities and connectivity as other cities and towns across the state.

Offer Resources to Help Tribal Businesses Get Online - Broadband allows Utah's businesses to compete and expand into markets throughout the world. This principle applies as much to tribes as any other organization in the state. For instance, Lickity Split Chocolate, based in Blanding, Utah is a great example of one of Utah's Native American companies that has benefited from utilizing online resources. The company has created a website and does most of its sales online.

In accordance with the initiative to develop a series of workshops to help rural businesses get online, the Utah Broadband Project will partner with the Utah Division of Indian Affairs to help the organization develop similar workshops to help Native American businesses create an online presence. These workshops will help identify and educate tribal businesses on the value of a web presence, creating a website and accessing new markets for their products.

Offer Computer Literacy Resources to Tribal Members - Technology and the Internet are transforming every aspect of



Utah Division of Indian Affairs

Building Bridges

Increasing tribal connectivity and adoption rates will have major impacts on their economic opportunities

our lives. However, Native American populations have some of the lowest broadband adoption rates nationwide. This is further compounded as many tribal members may lack the computer skills necessary to access the Internet, which has become increasingly important to economic and educational growth.

It is recommended that the Utah Broadband Project work with private stakeholders and the Utah Division of Indian Affairs to teach computer literacy skills to tribal members. Additionally, partners may utilize existing tribal meetings to raise awareness about broadband and teach tribes the benefits of the Internet in an increasing digital world.





Utah Broadband Project Resources

Visit broadband.utah.gov for electronic versions

Utah Broadband Project Reports



2012 Utah Broadband Advisory Council Report



2014 Broadband Nonadoption Report



2011 Broadband Adoption Report

Mapping Resources

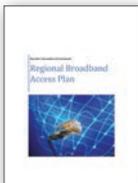


Utah Broadband Project Interactive Map



Utah Broadband Project Map of the Month

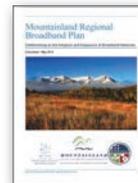
Regional Broadband Plans



Bear River Association of Governments



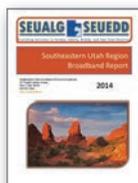
Five County Association of Governments



Mountainland Association of Governments



Six County Association of Governments



Southeastern Utah Association of Local Governments



Uintah Basin Association of Governments



Wasatch Front Regional Council

Community Tools and Public Access



Public Broadband Access Locations



Digital Literacy Training Materials





Conclusion

In order for this plan to be adopted and endorsed, it must be vetted by both key stakeholders and state leadership. The plan has been reviewed by the Governor's Office of Economic Development and Utah Broadband Advisory Council and their recommendations have been incorporated into the final document. In the upcoming months, the project team will work with the Governor's Office and Utah State Legislature to determine future steps. If these key decision makers endorse the creation of this program, GOED will work with the Governor's Office and Utah State Legislature to determine an appropriate funding mechanism.



The Utah Broadband Project looks forward to working with these key decision makers to further encourage the advancement of broadband deployment and adoption. Please contact the Utah Broadband Project team if you have any comments or recommendations.



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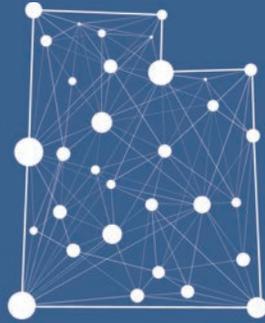
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