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ARIZONA TELECOMMUNICATIONS AND INFORMATION COUNCIL

Arizona DOC/GITA Broadband RFI Response

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The Problem:

Arizona Telecommunications and Information Council's (ATIC) vision is that all of Arizona's citizens, businesses, and organizations will have access to advanced telecommunications services and information technologies enabling them to fully participate in the global economy. Broadband telecom has become a critical infrastructure essential to the economic, educational, health, welfare, and safety of the community, as well as increasingly important to individual development and quality of life within Arizona's communities. Today, an effective broadband infrastructure does not yet exist in most of the rural, tribal, and even fringe urban areas around the state. This has a significant negative impact on regional economic development, businesses capabilities, citizen access to Internet resources, and deployment of advanced applications such as electronic education and telemedicine. Further, the lack of broadband access affects a myriad of modern government and public services such as the availability of government information and critical public safety capabilities and responsiveness of our police, fire, medical and emergency services, including first responders and homeland security.

Because advanced broadband telecom services are either not consistently available or unaffordable, Arizona communities in need of economic development and revitalization frequently lack the necessary infrastructure to grow existing and start/attract new businesses. Citizens in these rural and tribal communities have limited access to advanced applications such as eLearning and educational resources, e-Government, telemedicine, and rich media such as music and video. Thus, with the U.S. now trailing many developed nations in broadband speed and usage, and Arizona below average for U.S. state broadband metrics, the Arizona Telecommunications and Information Council (ATIC) recommends that Arizona adopt and invest in a strategy to accelerate deployment of advanced telecommunications services and affordable broadband Internet access throughout the State focusing on unserved and underserved rural areas.

Arizona Policy Initiatives:

In Arizona, several organizations both within government and public-private partnerships such as ATIC and the Communications Infrastructure Advisory Committee (CIAC) of the Governor's Council on Innovation and Technology (GCIT) have been pursuing ways and means of solving the above problem for a number of years. Many acknowledge that the issue is not technology itself, but policies, procedures, rules, regulations, process delays, right of way ownership, lack of middle mile deployed infrastructure, conflicting interests, inability to provide an environment of co-operation between all stakeholders, lack of awareness of the importance of broadband to smaller communities or tribal

entities, poor ROI (return on investment) for the private sector vendors, or combinations of many or all the above.

Irrespective of the causes, the problem continues to exist and Arizona's current lack of coordinated efforts and targeted investment will not serve to adequately resolve them. Many states have taken different approaches to the problem as detailed in a recent study commissioned by the Arizona Department of Commerce (DOC) and Government Information Technology Agency (GITA) recapping a variety of successful regional approaches with specific recommendations for the State of Arizona to consider (See <http://www.azcommerce.com/Research/Arizona+Broadband+Initiative+Framework+-+Analysis+and+Report.htm>).

The purpose of this document is to provide ATIC's perspective, some guidelines, and proposed mandatory principles that all proposed broadband infrastructure enhancement solutions should be measured against. Additional details on past Arizona telecom and technology economic development activities and studies can be found on a special Archive page on the ATIC site at <http://www.arizonatele.com/atic/archive.html>.

Mandatory Principles:

Broadband technologies and markets currently should be and must in the future remain **UNREGULATED** to the greatest extent practical. Thus any proposed solution that gives one entity or technology exclusive access to broadband investment programs or guarantees exclusive program participation and coverage of an area barring other private or public sector participation should be a non-starter. Any broadband investment and support programs should allow individual communities or regions to select and manage their own approach based on current broadband status, stakeholder input, community resources, and other factors.

Broadband technology assets require the designation of "Critical Infrastructure" and entitles such assets to the precedence given to other such designated infrastructures, like Highways, Utilities and Waterways, including tax and funding policies. The designation also includes the precedence of carefully balancing urban funding to build-out rural capital assets (e.g., roads in rural areas have majority funding from fees collected at urban gas pumps). The reality is that without such balancing, rural build-out is unlikely to occur sufficiently, because the ROI formulas needed in the maintenance of private ownership of the infrastructure don't support or justify the level of investment by the private sector. But the funding models and processes need careful balancing so that the principles of private ownership of assets, and of a level playing field for all private sector players are maintained.

The benefits of such urban to rural balancing do not just accrue to rural populations. Encouraging the build-out of rural broadband assets is an important factor in reversing the environmentally destructive trend of urban population shift, allowing people to live anywhere and still be productive in the "information age". Increasing broadband in rural areas also provides a more robust homeland security environment

The following is an update to a proposal submitted by the Strategy Committee of CIAC to GITA and the GCIT in the fall of 2006. It focuses on the "Middle Mile" infrastructure to enable the private sector and more viable ROI to complete "Final Mile" infrastructure to rural communities.

GCIT CIAC Strategy Committee Goal:

The Goal of this Plan is to facilitate the ubiquitous deployment of a Broadband Infrastructure to all parts of the State of Arizona, with emphasis on rural Arizona. A major goal of this plan will be to facilitate the “Middle Mile” deployment, i.e., that infrastructure, sometimes called trunk lines or fiber lines, which connects remote communities to each other and to urban “tier one” sites.

Policy Statement:

In the State of Arizona “Broadband Infrastructure” should be recognized as “Critical Infrastructure” for purposes that include but are not limited to: Homeland Security, Fire Safety /Fire Fighting, Medical Health and Welfare, Law Enforcement, Education, and Economic Development.

Suggested Actions:

Legislative:

Legislative action to declare the Policy Statement above
Legislative action to form the Authority to fund and oversee the structure described below.

Authority Structure and Funding:

The State of Arizona needs methods to fund the “Broadband Middle Mile Infrastructure”

The Funding structure should be of similar framework as the Greater Arizona Development Authority (GADA) and the Water Infrastructure Authority (WIFA) to allow for “Public to Private” Governance of Funds in an Arizona Broadband Development Authority (ABDA).

The ABDA should be administratively placed in an established state agency to speed implementation of administration activity (GITA or Department of Commerce).

Funding should include but not be limited to the following:

1. Funds currently available from the regulated telecommunications system
2. Grants from all sources federal, state, foundations, private sector
3. Loans from all sources
4. Bonding managed by the ABDA
5. Gifts from foundations and the private sector
6. Fees (not taxes) from Broadband users, only upon a carefully balanced and competitively neutral basis.

Funding Guidelines:

- No tax payer’s dollars should be used for “Broadband Middle Mile Infrastructure” build out

- Lottery dollars should be a prime candidate for funding
- Some funding is currently available from USF funds for broadband and should be leveraged to the fullest extent
- Gaming dollars should also be considered to assist in developing the Broadband Infrastructure serving the State's Native American Indian lands.
- The Arizona Corporation Commission (ACC) should be used as a "bully pulpit" for broadband deployment issues but should continue as a non-regulatory body regarding broadband policy.
- The state should request and if necessary require the Arizona Department of Transportation (ADOT) to provide 'Longitudinal' Right of Way along all state roads in the state.

ATIC's Overall Goals:

Broadband investment and services in the state of Arizona should remain un-regulated to the greatest degree practical and not favor specific delivery technologies or market models unduly.

Create an Arizona Broadband Development Authority (ABDA) to provide grants, incentives and low cost, long term financing to encourage private sector development of redundant middle mile and last mile telecom solutions in the state, adapting best practices from other states. The ABDA should be empowered to: issue bonds and notes; make loans and provide joint venture and partnership arrangements to broadband developers and broadband operators for financing or refinancing; enter into contracts for the lease or management of the infrastructure; and enter into joint venture and partnership arrangements with persons that will acquire, construct, develop, create, maintain, own, and operate the infrastructure. Owners of the network may be private, public or public/private partnerships and any funding for public or public/private networks using state or federal funds must be open and available on an equal basis to all. Funding may come from sources such as the Arizona Broadband Universal Service Fund, tax incentives, bonding, tribal gaming, tobacco taxes, E-rate, and other Federal programs including homeland security.

ABDA should focus initially on initiating and funding programs to complete the build out of the state's "Middle Mile" Broadband Infrastructure in 5 years before the state's centennial in 2012, insuring that redundant and resilient broadband capacity reaches all rural communities. The ABDA should be designed to legislatively sunset after a reasonable period of time (5-7 years) with its mission accomplished.

Vendors should be encouraged to participate in public-private partnerships and shared network initiatives as well as to develop longer range ROI plans to help facilitate private sector expansion of their current broadband networks. If one looks at all the potential applications that can drive revenue to the private sector vendors, new business models may emerge to keep solutions in the private sector.

The public sector should be encouraged to streamline the processes required to obtain permitting, access to right-of-way and cooperation between public sector entities. This will eliminate one of the biggest cost factors because 'time is money' when scoping out work.

The public and private sectors need to work together to complete the middle mile gaps in the state with fair access to all. All stakeholders and groups that have application needs that require broadband should cooperate in the broadband build-out.

Future Expansion:

The expansion to provide “redundancy” should be a secondary though significant priority. The desire for competitive choice, insured quality of service, and communications resiliency should positively influence the design and support of solutions to the extent practical.

If we focus on Arizona’s Middle Mile build out, the cost for the private sector to provide last mile will be dramatically reduced and will enable the private sector vendors to leverage a positive Rate of Return (ROR) and Return on their Investments (ROI). Thus the Middle Mile build out provides the necessary basis for rural communities to encourage economically feasible broadband build out within their communities.

Arizona needs processes and possibly programs to expedite access to local, state, federal and tribal rights-of-way. Arizona also needs to facilitate the coordination and development of recommendations for legislation and executive directives to enable one-stop-shopping, consistent fees, and expedited right-of-way permitting processes for last mile and middle mile inter-city/town transport.

About ATIC:

The Arizona Telecommunications and Information Council (ATIC - <http://www.arizonatele.com/atic/>) is Arizona’s recognized and authoritative organization guiding technology policy development, serving as a leading source of information and expertise on telecommunications and information technology matters. ATIC develops, promotes and supports initiatives and guides adoption of effective public policies that encourage wide-scale deployment and availability of telecommunications services and information technologies to insure economic prosperity for the Arizona community, expand the region’s global competitive advantage, enable continued educational advancement and support an enhanced quality of life. More information on ATIC, its activities and events can be found on the web site at <http://www.arizonatele.com/atic/> or contact us at atic@researchedge.com or (602) 254-5887.