

ATIC Partnerships & Business Model Groups
April 4, 2017, Teleconference Report

Attendees: Oris Friesen, Henry Goldberg, Mark Goldstein, Mala Muralidharan, Michael Cohen, Ron Schott, Steve Peters, Andy Phelan, Janet Major, Debra Dupée.

This is a report on the conference call held Wednesday, April 4, 2017, at 10 a.m. to follow up on the Partnerships/Business Model Groups (Strategy Committee) topics.

1. With respect to partnership possibilities with the Arizona Commerce Authority (ACA), Bill Bolin was unable to attend but he left a message with Oris regarding Agenda Item #6 below.
2. We discussed partnership possibilities with the Arizona Broadband for Education Initiative including progress of the Governor's budgeted funding and Commissioner Tobin's Arizona Corporation Commission (ACC) Arizona Universal Service Fund (AUSF) proposal for state matching funds towards E-rate modernization funding of rural broadband infrastructure to K-12 schools and libraries.

Mark has seen reports on the house budget including some of the Governor's items, but not mentioning the proposed \$5 million in state matching funds for the E-rate modernization program. Mark noted that Milan Eaton and ACC Commissioner Andy Tobin met recently with the Navajo tribal representative Teresa Hopkins to discuss the newly available AUSF E-rate funding and to support their RFP process.

Mark asked Dianne McCallister of Public Policy Partners, lobbyist for the Arizona Technology Council, if the Governor's \$5 million E-rate state matching funds line item is in the current House budget. She replied that she wasn't certain, but believed that it is not currently included. No published versions of the working budget are available to confirm.

Mala reported that more than 240 schools and various libraries are preparing RFPs for E-rate broadband infrastructure. Most of the rural counties and tribal communities are participating to some degree and the list of participants is increasing daily to meet the deadline of May 11 for this year's E-rate modernization program applications. It is expected another significant tranche of schools and libraries will participate in a second wave for the next e-rate cycle next year.

➔ Mala will prepare a detailed report for the Board Meeting next week.

3. Henry reported on his meeting with Bobby Davis, Town of Payson Economic Development Specialist.

Henry Goldberg met with Bobby Davis in Payson on March 17th to discuss Payson's economic development goals and telecommunications issues related to these goals. Henry overviewed ATIC's Template of Assets (concise summary of assets) and the detailed list of past accomplishments specified in "Appendix A: Projects and Reports Involving ATIC Board Members," dated January 5, 2017.

Henry informed Bobby of the E-rate modernization program and recent ACC AUSF approval for \$8 million in state matching funds, and gave him a copy of the Milan

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Eaton/Mala Muralidharan presentation on the program with their contact information. Bobby said the Payson school district (representing 5 schools) is putting out an RFP for the E-rate broadband infrastructure program, and he called the Payson library director that day leaving a message on the program.

Bobby overviewed the Payson telecommunications situation. CenturyLink has fiber middle-mile trunking coming into Payson from Cottonwood. The issue is that fiber backhaul bandwidth is still limited because of insufficient telecommunications equipment connecting to the fiber, which costs about \$500,000 to install and the business case has not been there to justify this. CenturyLink has previously provided 1 Gbps to Payson high school but this reduced bandwidth for the rest of the community because of this telecommunications equipment insufficiency. CenturyLink provides DSL service to homes/businesses and Suddenlink provides cable service to homes/businesses leasing fiber backhaul from CenturyLink. Verizon Wireless provides service also using CenturyLink fiber backhaul. GovNet set up wireless towers in the area but never provided service.

A big problem for Payson is that they had several major recent telecommunications outages, which seriously affected the hospital, businesses, people trying to use credit cards, and emergency 911 service. The reliability problem could be solved if redundant fiber is deployed from Payson to Forest Lakes (a distance of about 30 miles) to connect with Frontier Networks' fiber network thereby creating a fiber loop architecture. The fiber could be installed on APS power poles and would cost about \$3 million for the fiber and related telecom equipment. Jim Simms (who advises Payson on their network planning) said there is a minimal commitment from Frontier to deploy this fiber. There is also talk of establishing a POP in Payson to manage the interconnection of traffic between service providers.

Gila County, Apache County, and Navajo County have a broadband consortium to lobby the Governor, state legislature, and Arizona Corporation Commission on their interests, and they are more likely to gain service provider cooperation if they have an overall direction.

Payson is the economic hub for the surrounding 25 communities, and has major economic development goals to expand in the near future. Land has been allocated to build a "multiversity" cooperating with the state universities for on-campus and online instruction. This multiversity would attract a number of new businesses for their industrial park, in R&D, and related tourism. Telecommunications is the critical bottleneck to their multiversity and general economic development goals – the town requires sufficient broadband bandwidth and reliability.

Mark suggested Henry invite Bobby Davis to attend the April 12th ATIC Board Meeting (Update: Henry did this after the teleconference and Bobby said he would participate remotely). Mark noted that Ron Schott, ATIC Treasurer, wanted a brief standalone trip report submitted along with Henry's expenses for reimbursement and suggested the relevant section of this report could be readily extracted and repurposed to meet that need.

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4. Henry also reported on a conversation he had with Jim Simms on a proposal for a middle-mile fiber network for Arizona similar to such a network being built by the State of Kentucky.

Henry Goldberg spoke on the phone with Jim Simms on March 21st, who has extensive experience with network planning in rural Arizona and advises the Town of Payson on their telecommunications planning. Jim told Henry he is launching a major project to consider establishing a public-private partnership to build a middle-mile fiber network for the entire state of Arizona similar to such a network being built by the State of Kentucky. See the following article on the Kentucky network: <http://www.govtech.com/network/Kentucky-Unveils-Plan-to-Implement-Broadband-Statewide.html>.

Jim held a meeting on March 30th with the people that are building the Kentucky network (the meeting was closed to outside participation). Jim intends to make presentations on the implication of this for Arizona to regional Arizona groups, the Governor, and other relevant players. Henry asked Jim if he would be willing to speak to the ATIC Board about this project and he said he would. Mark Goldstein asked Henry to invite Jim to speak at the April 12th ATIC Board Meeting. Henry spoke to Jim after the teleconference and Jim will present on this at the April 12th Board Meeting.

ATIC can discuss whether it should play a role in supporting this project. Henry commented he believes this approach is ideally what the state and federal government should be following in that it would create a middle-mile fiber network that reaches all Arizona rural communities, would be designed with loop architectures for resiliency, and enable competition in rural communities where multiple service providers wish to offer services. This is the type of approach recommended in the 2012 document "Arizona's Strategic Plan for Digital Capacity". Henry added ATIC could provide insight into how this approach is more economically effective and could build on the various disjoint federal programs for rural communities including the FCC E-rate modernization program, the FCC Connect America Program, the recently-announced AT&T contract for the FirstNet network for police/fire/emergency medical services first responders, and Rural Utilities Services programs.

5. Report on the status of the ATIC website.

Mark is still waiting for some assistance from Craig Stevenson to resolve the WordPress access issues to enable website content editing.

6. Regarding strategies and opportunities to expand and reinvigorate ATIC, the following comments were made.

Bill Bolin passed along a few ideas for ATIC to consider:

- AZ Commerce Authority "Innovation Connection" offers grants for entrepreneurs and Leadership.

ATIC could co-sponsor some of these for individual or small business with

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technology product.

- However, ATIC in its current situation probably does not have enough capital to pursue this option.
- Nationally, there is a demand and a low supply of software engineers for IT, Internet of Things, Broadband, etc.

Working with the State Library, ATIC could put on workshops that boost interest in these fields.

- This is something we could do and probably should pursue.
- ATIC could connect better with AZ Dept. of Education.
ATIC could produce a "How to Increase Data Security" guideline for a business and offer it free as goodwill, with hopes of generating additional funding from those who find the material to be of value.
 - Although there exist other groups who may be more likely to meet these needs in general, Steve noted that Small to Medium Businesses (SMBs) need to be educated about the risks they face in IT security, for example, how to use routers, firewalls etc. Mala suggested that perhaps this could be folded into the ATIC cyber security event in May, but it may be too late for that.
 - It was noted that this really folds into Bill Bolin's workshop suggestion mentioned above as his second alternative.

- Mark said we could endorse and promote Jim Simms' work.
- Mala suggested we could help promote the adoption and use of broadband for libraries once the infrastructure is in place.
- Mark and Steve said we could help to play a convener role among providers, land owners, and regulating agencies/governments regarding Rights-of-Way (ROW) issues and how to resolve them.
- Arizona legislation has recently been passed and signed into law to streamline the deployment of small cell technology that will give birth to the next generation of wireless communication. See Governor Ducey's press release on House Bill 2365 at <https://www.linkedin.com/pulse/arizona-becomes-first-nation-pave-way-5g-technology-deployment-ducey>. This could prove to be a platform and model for future ROW streamlining efforts.

In response to a question about the upcoming elections at the April Board meeting, Mark replied that Mala had declined to run for Secretary, Mark will be resigning as Secretary (though remaining on the Board) and the other positions are open. Nominations are welcome.

7. Announcements:

Digital Southwest Broadband Summit 4/17-18/17 in Mesa
(<http://nextcenturycities.org/digital-southwest/>)

Rural broadband focus. Free for all government employees and \$100 for general admission.

Mark is moderating a panel and John Badal is speaking.

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The National Telecommunications and Information Administration (NTIA), through its BroadbandUSA program, is holding an in-depth technical assistance workshop on broadband planning and funding on Wednesday, April 19

(<https://www.eventbrite.com/e/arizona-broadband-workshop-registration-32671535442>).

→ Mark followed up with event producers to see about discounts for ATIC Board members and proxies who are not government employees. He was successful, and ATIC Board members and proxies from the private sector may now register for the Summit at no charge by using promotional code MESAVIP. The NTIA workshop remains free for all.

SmartGig Arizona 5/15-16/17 in Phoenix (<http://www.smartgigarizona.com/>)

Smart cities focus. \$249-799 early registration (before 4/15/17).

Mark and Michael Sherman are speaking

Arizona Digital Government Summit 5/31-6/1/17 in Phoenix

(<http://www.govtech.com/events/Arizona-Digital-Government-Summit.html>)

Free for public sector employees. ATIC usually exhibits with 2 comp passes to staff booth. No registration for private sector attendees other than sponsoring.

We hope to continue to exhibit.

→ Oris will follow up.

Mala will be attending the

The Schools, Health & Libraries Broadband (SHLB) Coalition conference,

which is scheduled in Crystal City, Virginia, on May 31 – June 2, 2017.

Details at <http://2017conference.shlb.org/> FYI.