

## **November 16, 2020 AZBSN COVID-19 Digital Access Task Force Teleconference Report**

### **Attendees**

Steve Peters, Oris Friesen, Henry Goldberg, Mark Goldstein, Tracey Beal, Andrew Bevington, Melissa Boydston, Kirk Busch, Michael Cohen, Jerry Crow, Alexandra Dominguez, Terence Ford, Ian Hathcock, Holly Henley, Steve Hill, Shereka Jackson, John Kelly, Suresh Kolpuru, Ilana Lowery, Lea Marquez Peterson, Derek Masseth, Ryan McCaigue, Clarence McAllister, Peter Newbegin, Mauricio Orozco, Jeff Sobotka, Karen Ziegler

### **Task Force Recommendations Report and Participants Survey**

#### Task Force Recommendations Report

Steve Peters stated the task force recommendations report required a few minor changes, and the report should be finalized with these changes today. Steve met with Insight to discuss the report's press release, cover letter, and marketing on social media. He hopes that the report and the press release will be distributed this week. The report has a landing page on the task force website, and the task force landing page has been updated.

Jeff Sobotka remarked that he would like to pass the task force recommendations report to some contacts he has.

#### Task Force Participants Survey

Steve reminded task force participants to fill out the Google Form he sent to provide their organizational and contact information so he has up-to-date information for all participants.

#### Other Announcements

Tracey Beal announced that the City of Phoenix has received \$3 million in funding from a public-private partnership to support computer needs in the city.

Steve encouraged task force participants that shop on Amazon to sign up for Amazon Smile, which will donate a percentage of purchases to GAZEL, which is a co-sponsor of this task force.

### **Updates: State Broadband Director, ACC**

#### State Broadband Director Update

Jeff Sobotka, State Broadband Director at the Arizona Commerce Authority (ACA), reported on his recent activities.

Jeff spoke with Janet Major regarding her United States Distance Learning Association work and NTIA activities. The NTIA's broadband mapping is a big improvement over what was previously available.

Jeff spoke with the City of Tucson about their municipal wireless network project.

He continues to work with the Arizona Dept. of Transportation and the Sun Corridor Network on broadband infrastructure issues.

The State Broadband Working Group, which involves various state agencies, has been meeting. Lea Marquez Peterson asked Jeff if the Arizona Corporation Commission has been participating in this State Broadband Working Group, and Jeff responded that they have not so far but he would ensure the ACC is invited to future meetings.

Jeff is partnering with the National Telecommunications and Information Administration (NTIA) to put together a monthly series of workshops (webinars/town halls) beginning in March 2021 on getting broadband to rural communities. Our task force will be invited to participate in these workshops.

Jeff met with communities that have received state Rural Broadband Development Grants (RBDGs) such as Payson and Page, as well as St. Johns and Springerville that are applying for federal grants based on broadband planning they are doing with consultants.

The telehealth Broadband Action Team has had several calls with service providers about providing broadband to support telehealth services in northern Arizona.

#### .ACC Update

Lea Marquez Peterson, Commissioner of the Arizona Corporation Commission (ACC), reported on her recent activities.

Lea has been speaking a lot about broadband around the state during her recent re-election campaign for the ACC. She has also been promoting the Arizona State Library Connect-Arizona portal.

Lea has been working on the issue of reforming the Arizona Universal Service Fund (AUSF) to support broadband in high-cost rural areas (as discussed at previous task force meetings). She delivered a presentation to ACC staff on this, in which she mentioned that Frontier is the only service provider that has been allocated AUSF funds in the past. Other states are restructuring their USF funding programs for supporting broadband. She opened an ACC docket for hearings on the AUSF reform issue, and the docket includes postings of her presentation and our task force recommendations related to this area (see link in Appendix Chat). They have requested feedback from service providers on this issue. The AUSF will currently have about \$1 – 1.5 million to allocate. She is looking for input from our task force about how to use this funding.

Steve Peters asked whether other ACC commissioners are interested in broadband issues. Lea responded that Jim O'Connor, who has just been elected to the ACC, has an interest, and she will be discussing broadband with the other ACC commissioners.

.

## **CommScope/Ruckus Wireless Presentation**

Mark Goldstein stated he invited Ryan McCaigue, senior systems engineer at Ruckus Wireless, to speak to the task force since he has been a key figure in building some of the earliest municipal Wi-Fi networks in the country. Ryan has played a major role in the design, construction, and management of 16 large-scale municipal wireless networks. He has been with Ruckus Wireless for the past six years, which is now owned by CommScope. Following are some key points from his presentation, and the full presentation will be posted on the task force website.

Ruckus Wireless is one of the first companies working on developing equipment and solutions for CBRS (Citizens Broadband Radio Service), sometimes called Band 48 or Open G, wireless networks. Ruckus is part of the CBRS Alliance. Cellular wireless technology has evolved from 2G, 3G, 4G, to now 5G, and CBRS is shared 3.5 GHz lightly-licensed spectrum for 4G private LTE solutions. Wi-Fi is also evolving to Wi-Fi 6 unlicensed 6 GHz spectrum solutions.

CBRS is a new licensing model that enables enterprise private cellular LTE solutions with various advantages over Wi-Fi solutions: higher quality-of-service and reliability, better range and non line-of-sight coverage, better end-to-end security, and longer device battery life. Enterprises get their own dedicated spectrum of 15 10 MHz channels, but they do require a spectrum allocation server to ensure there is no interference with other service providers using this spectrum. There is a CBRS device ecosystem of products including routers/gateways/bridges, phones, push-to-talk radios, and tablets/laptops. Enterprise solutions can be deployed easily like Wi-Fi solutions and are highly scalable.

Ruckus Wireless has worked on CBRS Private LTE applications in health care and education. In health care, broadband applications include medical staff communications, triage tents, cleaning robots, and security video cameras, and the benefits are HIPAA-compliant privacy/security and no degradation with volume of patients. The Utah Education Network has a CBRS project involving multiple school districts, where CBRS extends the school campus networks to the surrounding communities. Educational roaming with authentication of students is enabled, and the Utah Network is funded by the CARES Act funding and E-rate (but there are regulations about using E-rate funding to extend school networks to surrounding communities). Ryan added that Ruckus is the wireless service provider for Yuma schools.

Ryan explained that Wi-Fi also continues to improve greatly and will see massive speed increases with Wi-Fi 6 for both indoor and outdoor applications by 2022. There is 1.2 GHz of unlicensed spectrum available in the 6GHz range. This will provide high throughput and low latency. Unlicensed devices and access points will share 6 GHz spectrum with incumbent licensed services.

Jeff Sobotka commented that CBRS is an interesting technology to provide last-mile broadband solutions, and asked how the spectrum allocation servers play with service providers using CBRS spectrum. Ryan responded that CBRS solutions do require an FCC-certified installer unlike Wi-Fi solutions.

Derek Masseth commented that the Sun Corridor Network is experimenting with CBRS in Flagstaff and Page, working with a couple of providers on this. He stated that the Utah Education Network is primarily using Wi-Fi now but is evolving to CBRS.

Mark Goldstein noted that the Phoenix Union High School District has released an RFP to select a vendor for secured home-to-classroom intranet connections (see Appendix Chat). Derek Masseth and Terence Ford commented that CBRS will likely be proposed for this RFP.

Mark Goldstein asked about the range of CBRS solutions, and Ryan responded that CBRS gets 50 – 60% longer range than competing Wi-Fi alternatives with less contention among users.

Steve Peters asked if schools/libraries can use their same campus networks with CBRS, and Ryan responded that these networks do not change, only new CBRS access points need to be installed.

## **Next Steps**

The next AZBSN COVID-19 Digital Access Task Force overall meeting will be held on Monday, November 23rd at 7:30 am.

Henry Goldberg and Oris Friesen will write up a summary report of today's task force meeting.

## **Appendix: Chat from Zoom**

From Mark Goldstein to Everyone: (7:36 AM)  
[file: PUHSD Network of the Future RFP Flyer 11\_20.pdf]

From Mark Goldstein to Everyone: (7:36 AM)  
[file: PUHSD Network of the Future RFP Main 11\_20.docx]

From Mark Goldstein to Everyone: (7:36 AM)  
[file: PUHSD Network of the Future RFP Pricing Response Form 11\_20.xlsx]

From Mark Goldstein to Everyone: (7:37 AM)  
Phoenix Union High School District has released an RFP to select a vendor for secured home-to-classroom intranet connections proof of concept then a full test of 4 sq. miles. Announcement at <https://www.phoenix.gov/Newsroom/CED/1608> and RFP + pricing spreadsheet posted here.

From Mauricio Orozco to Everyone: (7:42 AM)  
Great News!

From ryanmccaigne to Everyone: (7:52 AM)  
Link to website reference in my presentation. <https://www.uen.org/tech/cbrs/>

From Derek Masseth to Everyone: (7:53 AM)  
sorry, can't figure what's wrong with my microphone

From Mark Goldstein to Everyone: (7:59 AM)  
ITIF released a report on 11/7/20 regarding President-Elect Biden's Agenda on Technology and Innovation Policy which you can find the overview of and download at

<https://itif.org/publications/2020/11/07/president-elect-bidens-agenda-technology-and-innovation-policy>

From Lea Marquez Peterson to Everyone: (8:00 AM)  
link to presentation I made at ACC meeting on the AUSF.

From Lea Marquez Peterson to Everyone: (8:00 AM)  
<https://docket.images.azcc.gov/E000010065.pdf>

From MelissaBoydston (08:12 AM):  
Is this what Phoenix Union's Network for the Future is attempting?

From Derek Masseth (08:13 AM):  
CBRS will likely be involved in the Phoenix Union solution.

From Steve Peters to Derek Masseth(Privately) (08:13):  
Derek if your mic isn't working you can call in by phone. I believe you are working on a CBRS project

From Derek Masseth (08:14):  
I am on my phone...my laptop died this AM...think the phone much is the problem

From MelissaBoydston (08:14):  
Thank you Derek.

From Derek Masseth (08:15):  
This is a to and through project, like Mala and SHLB have been talking about.

From Derek Masseth (08:18):  
Yep would love to have that follow up call with Ryan

From Terence Ford (08:24):  
Agree Derek, CBRS Technology is most feasible re: the Phoenix Union RFP.

From Steve Peters to Suresh Kolpuru(Privately) (08:37):  
Hey good to heard from you. Lets talk today

From traceybeal (08:38):  
Great info!