

July 19, 2021 AZBSN COVID-19 Digital Access Task Force Teleconference Report

Attendees

Steve Peters, Oris Friesen, Henry Goldberg, Mark Goldstein, Tracey Beal, Andrew Bevington, Brendon Blake, Melissa Boydston, Kirk Busch, Erin Carr-Jordan, Oliver Carter, Michael Cohen, Jerry Crow, Brian Daly, Milan Eaton, Michael Edmonds, Marcelino Flores, Ian Hathcock, Holly Henley, Steve Hill, Cindy Hogan, Shereka Jackson, John Kelly, Ryan Kelly, Ilana Lowery, Paul Melcher, Andrew Metcalfe, Randy Mifflin, Georgina Monsalvo, Mauricio Orozco, Chris Pasterz, Lawrie Prickett, Cindi Ptak, Tracy Rexroat, Jenny Rickel, Fernando Roman, Paul Ross, Michelle Simon, Andy Sinclair, Roni Singh, Jeff Sobotka, David Soffer, Tom Tardy, Paul Trujillo, Rachna Vas, Albert Velarde, Manny Villa, Joy Whiting, Brad Zerbe, Karen Ziegler

Task Force Sponsors, Events and Updates Webpage, Participants List, Upcoming Presentations at Task Force Meetings

Task Force Sponsors

Steve Peters again thanked Care1st Health Plan Arizona, Valley of the Sun United Way, the Satellite Broadcasting & Communications Association, and Kajeet for providing sponsorship funding for this task force. The sponsors are displayed on the task force website.

Steve is continuing to seek further funding support for the task force's upcoming work, and welcomes any organizations interested in becoming sponsors.

Task Force Events and Updates Webpage

Steve continues to add information relevant to the task force on the Events and Updates webpage of the task force website. Steve includes a link to this webpage/newsletter in his e-mails to the task force, and strongly encourages task force participants look at this webpage regularly for important information on programs (e.g. federal grant programs), events, and contacts. Steve regularly updates this webpage with new announcements and activities of interest to the task force.

Task Force Participants List

Steve noted that the task force participants spreadsheet is located on the task force website. Steve again asked attendees to fill out the Google form on the website to be included in this spreadsheet. This is a good place for task force participants who are looking to connect with others on the task force.

Attendees at task force meetings showing their position and contact information are also included in an Appendix of each task force meeting report.

Upcoming Presentations at Task Force Meetings

Steve stated he has arranged presentations for the next two task force meetings:

- There will be a panel discussion on municipal networks. Karen Ziegler is organizing this and she stated that Paul Ross (CIO of Phoenix College), John Lucas (President of Community Broadband Advocates consulting firm and former CIO of Graham County), and Milan Eaton (E-rate Director of Arizona Dept. of Education) will be on the panel. This panel will discuss models for municipalities to create broadband networks.
- Pima Community College Cyber Warfare Range presentation.

Updates: State Broadband Director, AZ State Library, ADE

State Broadband Director Update

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

The ACA has retained KPMG as the external consulting firm to provide an update to the 2018 state broadband strategic plan focusing on middle-mile fiber strategy/planning. KPMG has worked on state broadband plans in Georgia, North Carolina, and Pennsylvania, so is a strong partner in this project. Jeff stated some task force participants have met with KPMG to provide inputs, and other task force participants will also provide input.

The Economic Development Administration (EDA) has a new grant program with a focus on tourism. Jeff noted that EDA grants go to communities/counties not the service providers. Cindi Ptak, the EDA representative for Arizona, stated that information on applying for this program will be published in the near future, and she would be happy to discuss this with our task force once this information is published.

The July 14th ACA/NTIA Arizona Broadband Workshop featured a panel of Arizona experts on digital inclusion: Nicole Umayam (Arizona State Library), Shereka Jackson (Future Stars), Dominic Papa (ACA Smart State Initiatives), and Anais Ballesteros (Parent Educator Academy). The follow-up Regional Technical Assistance Sessions will be held on Wednesday, July 21st (two times to choose from), and task force participants are invited to attend. Steve noted that there is a link on the task force Events & Updates webpage to register for this. John Kelly complimented the ACA on the quality of the Arizona Broadband Workshops, and also noted that the SHLB Annual Conference in October in the Washington DC area will feature two Arizona speakers – Lev Gonick (ASU) and Callie Kozlak (ADE).

Arizona State Library Update

In the absence of Mala Muralidharan, E-rate Administrator for Public Libraries at the Arizona State Library, Holly Henley, State Librarian, provided an update on Arizona State Library activities.

Mala and Nicole Umayam are continuing to do outreach for the FCC Emergency Broadband Benefit (EBB) program, and are helping libraries with FCC Emergency Connectivity Fund (ECF) applications. The Navigators are continuing their work supporting library patrons.

Jeff Sobotka noted that as of last week Arizona is ranked #10 nationally in number of households enrolled in the EBB program, and thanked the Arizona State Library for their work on EBB outreach.

Tracey Beal, leader of our task force's EBB outreach activities and CEO of School Connect, stated there is still \$3.1 billion of the EBB funds remaining to be spent, and that April Jones of the Dept. of Economic Security has been sending out information on EBB in their newsletters. Marcelino Flores (Special Staff for Community and Workforce Development in Pima County) commented that he is doing EBB outreach with food and rental assistance programs. Ilana Lowery (Arizona Director of Common Sense Media) commented that she is working on signing up families for the expanded child care tax credit, and some families use this to pay for Internet service. Cindy Hogan (Digital Equity Project Manager of United Way of Tucson and Southern Arizona) commented that she participates in a National Digital Inclusion Alliance committee that is providing inputs to the FCC, and she is involved with housing & community development in Tucson that is signing up households for EBB. Andy Sinclair (Development Coordinator with the Arizona Dept. of Economic Security) commented that he has been working with Milan Eaton to contact schools and libraries for EBB enrollment.

ADE Update

Milan Eaton, State E-rate Director at ADE, reported on recent ADE activities.

Milan noted that he has done one webinar on the FCC Emergency Connectivity Fund (ECF) program, and has sent various e-mails on the ECF program to schools. Milan noted at the last task force meeting that "To and Through" projects using school E-rate funded fiber backhaul Internet access services are not allowed under E-rate regulations. Schools can bring in a separate non E-rate ISP service into the school and broadcast that signal from the school to the community.

Milan Eaton reported that the Arizona Rural Schools Association Final Mile Project (discussed by Wes Brownfield and Milan at previous task force meetings) is waiting for the window to close this Friday July 23rd on the responses solicited to the RFPs for the pilot projects at five rural school districts.

Mark Goldstein commented that there has been confusion about the legality of the "To and Through" approach which may have been because of the failure to pass the "Accessible, Affordable Internet for All Act" last year which would have represented an evolution in the E-rate rules and was supported by SHLB. See Mark's link in the Appendix 1 Chat for further discussion of this Act. Mark added that Derek Masseth of the Sun Corridor Network has been working on such projects (e.g. in a Phoenix trailer park) but these may involve using additional ISPs that are not E-rate funded.

Jeff Sobotka commented that "To and Through" projects are still a gray area with more clarity needed. Jeff noted that existing lit E-rate funded ISP services cannot be used in "To and Through" approaches, but if the E-rate funded ISPs deployed additional dark fiber to the schools not funded by E-rate, the ECF could possibly allow this dark fiber to be used for community Internet access service as long as this is paid for by the community. Jeff added that there are also E-rate funded middle-mile fiber networks in Pinal and Yavapai counties.

Ian Hathcock, Director of Sales at Cellular One, commented that Cellular One is working on ECF projects. Ian noted that ECF does not allow E-rate funded networks to be used for the communities' Internet services, but communities can use CARES Act funding for to and through

networks out of schools during non-school hours. He added that other ISP services not funded by E-rate can be used.

John Kelly also remarked that there needs to be more clarification of limitations on ECF funding for devices.

Fernando Roman commented there are two new bills addressing broadband, HR 1783 and S745, which should be looked at since they may provide information on federal broadband directions.

Mark Goldstein suggested the task force put out a one-page summary to clarify the ECF rules on “To and Through” projects and other areas for schools and libraries.

Steve Peters stated he will talk to Milan about scheduling a webinar on ECF to clarify information on this program’s rules for task force participants and other stakeholders.

Satellite Broadcasting and Communications Association Presentation

Steve Hill, President of the Satellite Broadcasting and Communications Association, delivered a presentation to the task force on satellite broadband services. Following is a summary of key points from Steve’s presentation, and the full presentation will be posted on the task force website.

Satellite Broadband services were initially introduced in the early 2000s which were generally slower speed, and these have served over 1 million customers.

In 2017, HughesNet and ViaSat launched geosynchronous (high-earth orbit) satellites that offer 25/3 Mbps Internet service and 100 Mbps in select markets with no data limits. These satellite services focus on rural and underserved markets, and now have about 2.5 million customers. These services support various broadband applications: residential/business/government, distance learning, telehealth, airlines, VoIP, agriculture (e.g. soil monitoring), video security systems, and continuity (providing backup to wireline networks in case of failures). Key benefits of these satellite broadband services are that they only take 3 – 5 business days to install service and are cost-effective particularly for rural areas.

A HughesNet survey of their small business customers found that 67% have home-based businesses, 10% are farms, and 30% operate a business such as an accounting firm or law office. These businesses use their satellite service for: e-mail and Web browsing, business services such as accounting and security monitoring, running the company website, processing credit card transactions, or for backup connectivity.

Satellite Broadband services are particularly valuable for disaster recovery for relief agencies dealing with hurricanes, fires, floods, or tornados because they can be easily set up and removed.

In 2022, Hughes and ViaSat will be launching next generation geosynchronous satellites that offer 8 – 10 times more capacity than they currently have, and will enable them to offer 100 Mbps services nationally. These satellites are funded 100% by the companies.

New Low Earth Orbit (LEO) satellites are being deployed by SpaceX, Amazon, and One Web to support satellite broadband services. These orbit the earth about 200 – 400 miles up as a

constellation of satellites. The key advantage of the LEO satellite services is that they will provide lower latency, which is important for some applications. SpaceX will deploy about 30,000 LEO satellites, Amazon will deploy 15,000 LEO satellites, and One Web will be using a hybrid LEO/geosynchronous approach. Full deployment of these satellites will not occur until 2027 or beyond. The cost to deploy these LEO satellites is in the tens of billions of dollars. These are currently in beta mode.

Future satellite broadband services will enable: telemedicine services (between rural communities health centers and larger centers), smart agriculture, Internet of Things, and supporting 5G where fiber backhaul is not available.

Satellite broadband services offer several competitive advantages: rapid installation in days, targeted deployment to users who need the service, and can be more cost effective to deploy than fiber or fixed wireless in remote or rural areas.

Jeff Sobotka commented that he heard the new LEO services will have the capacity to service 1.5 million people in North America. Steve Hill replied that they have half a million people booked now, and will probably be able to serve 1.5 million people when the satellites are fully deployed. However, there are concerns from astronomers and others about the amount of space clutter when all these LEO satellites are deployed.

Mark Goldstein commented that he has worked on a satellite teleport in northern Alaska. The U.S. is launching more satellites every year than ever have been launched in the past. Mark noted that LEO satellite constellations have interactive optical links between satellites, which are similar to fiber connections. Steve Hill explained these optical links ensure that customers won't have interrupted services as the LEO satellites pass over them. Mark stated the LEO customer premise equipment (CPE) price is initially \$500 which is about half their cost to attract subscribers, and Steve responded that the initial CPE cost is more likely \$1500. Steve added that the geosynchronous satellite services allow leasing of CPE.

Steve Peters commented that he saw a press release on a satellite service being proposed for Coconino County, and will be looking to bring more information on this to the task force.

Next Steps

The next AZBSN COVID-19 Digital Access Task Force overall meeting will be held on Monday, July 26th at 7:30 am.

As noted above, the Regional Technical Assistance Sessions following the last ACA Arizona Broadband Workshop will be held on Wednesday, July 21st.

Mark Goldstein reported that he is working on the broadband state and federal policy sections for the Arizona Technology Council 2022 Public Policy Guide, and will seek input from our task force on this as he did last year. Mark posted the Arizona Technology Council's State & Federal Broadband Policy excerpts for 2021 in the chat and is glad to provide via e-mail request to markg@researchedge.com. The full 2021 Public Policy Guide can be downloaded in its entirety as a pdf at <https://www.aztechcouncil.org/public-policy/>.

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

Appendix 1: Chat from Zoom

Paul Melcher to Everyone (7:33 AM)

Tucson weather has been amazing for the last two weeks, so I'd challenge that!

Paul Melcher to Everyone (7:40 AM)

Jeff, do you envision a separate meeting for this discussion?

Holly Henley to Everyone (7:40 AM)

I haven't heard from them, Jeff. They can contact me, and I'll work with them on scheduling time with Mala and Nicole. hhenley@azlibrary.gov

Cindy Hogan to Everyone (7:41 AM)

Hi Ilana, I know I owe you an answer, sorry it has taken me so long! I really have no sway at all with United Way - that said, I will try to figure out who I can put you with!

Ilana Lowery to Everyone (7:49 AM)

<https://www.ccdaily.com/2021/07/washington-watch-most-broadband-benefit-funds-left-unclaimed/>

Manny Villa to Everyone (7:50 AM)

Thank you for sharing...

Jeff Sobotka to Everyone (7:52 AM)

Thank you for the update Cindy Hogan! I read the NDIA updates and we all appreciate

Paul Ross to Everyone (7:57 AM)

A very pertinent conversation for educational networks. We could devote an entire meeting to this topic alone.

Tracey Beal to Everyone (7:58 AM)

I agree Paul. Great discussion

Mark Goldstein to Everyone (7:59 AM)

Last year, the U.S. House passed the “Accessible, Affordable Internet for All Act,” comprehensive broadband infrastructure legislation that would appropriate \$100 billion for broadband build out and for digital equity. At SHLB’s request, the bill included funding to bring gigabit capacity to every CAI – an overdue effort to achieve Goal #4 of the National Broadband Plan. The legislation’s open-access approach also promoted deployment of broadband networks “to and through” CAIs. SHLB encourages the 117th Congress to re-introduce the “Internet for All Act,” or to propose a similar package that does the following:

- Promotes deployment of middle-mile broadband infrastructure that is open to interconnection and shared use to promote last mile build-out.

- Encourages partnerships with private sector providers to ensure CAIs, businesses, and households in underserved areas can access robust and affordable broadband service.

Ilana Lowery to Everyone (7:59 AM)
Can those not talking please mute

Paul Ross to Everyone (8:00 AM)
There are many shades of grey.

Paul Ross to Everyone (8:10 AM)
We need Erate reform at the federal level. There are a lot of connected issues that impact network and services architectures.

Mark Goldstein to Everyone (8:11 AM)
Absolutely Paul. SHLB is a core driver of this expansion of to and thru capabilities and I know trying to get that factored in to one/some of the pending federal infrastructure bills.

Mark Goldstein to Everyone (8:22 AM)
[file: AZTC State & Federal Broadband Policy Brief 2021(1).docx]

Mark Goldstein to Everyone (8:22 AM)
The AZ Tech Council Public Policy Committee is entering the editing window for our 2022 policy and recommendation updates. Like to encourage this group to comment on the attached broadband state & federal fodder from last year as we seek to update and improve.

Paul Melcher to Everyone (8:44 AM)
Yuma

Paul Melcher to Everyone (8:45 AM)
Yuma has the spaceport, so I might have been confused. My apologies.

Roni Singh to Everyone (8:46 AM)
Thank you everyone.

Tracey Beal to Everyone (8:46 AM)
Great meeting as usual everyone!

Appendix 2: Registration Information for Attendees at Today's Task Force Meeting

First Name	Last Name	Organization	Job Title	Email	Phone	Mobile
Tracey	Beal	School Connect	CEO	tracey@schoolconnectaz.org		
Andrew	Bevington	Pima County School Superintendent Office	Director, Business & Education Partnerships	andrew.bevington@pima.gov	520-599-9987	
Melissa	Boydston	Valley Of the Sun United Way	Vp	Mboydston@vsuw.org		
kirk	busch	BigData Southwest, Inc.	ceo	kirk.busch@bigdatasw.org	4803344997	
Erin	Carr-Jordan	ASU	Head of Social Impact	erobins@asu.edu		
Oliver	Carter	GenTech	CIO	oliver@gentechsupport.com	6027177047	6027177047
Michael	Cohen	Independent	Sr Research	mikey1145@yahoo.com	5203906647	520-390-6647
Jerry	Crow	Digital Forensics and Cloud Security	Cybersecurity Profesional	jerry.crow@computer.org	4804515954	
Brian	Daly	AT&T	AVP	brian.k.daly@att.com	4252417544	4252417544
Milan	Eaton	Department of Ed	ERate	milangeaton@gmail.com	6233326357	623-332-6357
Michael	Edmonds	Thrive in the 05 ; Ward 3	Engagement Specialist	mike.edmonds@tucsonaz.gov	929-244-9477	929-244-9477
Marcelino	Flores	Pima County	Special staff	Marcelino.flores@pima.gov		
Oris	Friesen	ATIC	Secretary	oris@cox.net	6026891084	6026891084
Henry	Goldberg	ATIC	Vice Chair	hgold52@aol.com	480-609-9279	480-433-3536
Mark	Goldstein	International Research Center	President	markg@researchedge.com	602-470-0389	
Ian	Hathcock	SBI. dba Cellular One	Director of Sales	ihathcock@cellularoneaz.com	19282057713	
Holly	Henley	Arizona State Library, Archives and Public Records	State Librarian	hhenley@azlibrary.gov		
Steve	Hill	SBCA	president	shill@sbca.org	17039630350	
Cindy	Hogan	United Way of Tucson and Southern Arizona	Digital Equity Project Manager	chogan@unitedwaytucson.org		
Shereka	Jackson	Future Stars	CEO	futurestarsaz@hotmail.com		
Ryan	Kelly	Pima Area Labor Federation, AFLCIO	Field Director	rkelly@azafcio.org		
Ilana	Lowery	Common Sense Media	Arizona Director	ilowery@commonsense.org		623-341-0177
Paul	Melcher	Town of Oro Valley	CED Director	pmelcher@orovalleyaz.gov	5207800219	
Andrew	Metcalfe	Native Network Inc	CEO	metcalfe@nativenetwork.com	509-300-0101	509-661-2639
Randy	Miffilin	Cellular One	ICT Senior Business Consultant	rmiffilin@cellularoneaz.com		
Georgina	Monsalvo	Stand for children	Organizing Director	gmonsalvo@stand.org	5202758278	
Mauricio	Orozco	Care1st Health Plan Arizona	Community Engagement Manager	morozco@care1staz.com	14802823631	
Chris	Pasterz	Coconino County, AZ	Economic Development Manager	cpasterz@coconino.az.gov	9282255650	
Lawrie	Prickett	SBI	sfps	lprickett@cellularoneaz.com		
Tracy	Rexroat	Az Dept of Education	Program specialist	tracy.rexroat@azed.gov		
Jenny	Rickel	Native Network, Inc.	COO	jrickel@nativenetwork.com	5093000102	
Fernando	Roman	Communications Workers of America	Executive Vice President	froman@cwa7026.com	5207097199	
Paul	Ross	Phoenix College	AVP CIO	it.innovations@gmail.com		
Andy	Sinclair	Arizona Department of Economic Security Division of Aging and Adult Services	Caps Capacity Development Coordinator	asinclair@azdes.gov	4802632271	
Roni	Singh	Sahuarita Food Bank and Community Resource Center	ERN and CRC Director	rsingh@SFB-CRC.org	520-393-9872	
Jeff	Sobotka	ACA	State Broadband Director	Jeffs@AZCommerce.com		
David	Soffer	WANRack	Director of Business Development	david.soffer@wanrack.com		
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John kelly		TRIADVOCATES	Principal	John@triadvocates.com		