July 26, 2021 AZBSN COVID-19 Digital Access Task Force Teleconference Report

Attendees

Steve Peters, Oris Friesen, Henry Goldberg, Mark Goldstein, Andrew Bevington, Kate Boettcher, Kirk Busch, Gene Carl, Erin Carr-Jordan, Oliver Carter, Michael Cohen, Jerry Crow, Brian Daly, Michael Edmonds, Debra Hanken Kurtz, Ian Hathcock, Holly Henley, Steve Hill, Cindy Hogan, April Jones, John Kelly, Tarma Liranzo, Jim Logan, John Lucas, Janet Major, Paul Melcher, Randy Mifflin, Mauricio Orozco, Lea Marquez Peterson, Lawrie Prickett, Cindi Ptak, Tracy Rexroat, Jenny Rickel, Fernando Roman, Paul Ross, Michelle Simon, Andy Sinclair, Roni Singh, Jeff Sobotka, David Soffer, Paul Trujillo, Albert Velarde, Manny Villa, Joy Whiting, Brad Zerbe, Karen Ziegler

Task Force Events and Updates Webpage, Participants List, Upcoming Presentation at Task Force Meeting

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.
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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 Presentation at Task Force Meeting
Steve has arranged a presentation for the next task force meeting on the Pima Community College Cyber Warfare Range.

Updates: State Broadband Director, AZ State Library, Telehealth, ADE, ACC, AZTC Public Policy Guide and Lighting Up the Future

State Broadband Director Update

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

The Regional Technical Assistance Session following the last ACA/NTIA Arizona Broadband Workshop on Digital Inclusion was held on July 21st. Jeff thanked our task force participants that attended these Arizona Broadband Workshops and regional technical assistance sessions. There will also be a tribal technical assistance session on Wednesday July 28th that addresses the NTIA tribal broadband grants program.

The ACA has retained KPMG as the external consulting firm to provide an update to the state broadband strategic plan focusing on middle-mile fiber strategy/planning.   Jeff thanked task force participants that met with KPMG to provide inputs to their questions. Jeff would also like Milan Eaton and Mala Muralidharan to meet with KPMG to provide inputs on the E-rate program work in Arizona.

Jeff noted that the US Dept. of Commerce Economic Development Administration (EDA) announced on July 22nd a major new grants program, and he will talk with Steve Peters about arranging a webinar next week with Cindi Ptak, Arizona's EDA representative, to discuss this. Mark Goldstein put a note in the Appendix 1 Chat about this EDA grants program funded by the American Rescue Plan Act, which provides a total of about $3 billion in funding for six challenge areas. Cindi Ptak briefly overviewed the six challenge areas: 1) Build Back Better Regional Challenge ($1 billion in funding); 2) Good Jobs Challenge ($500 million); 3) Economic Adjustment ($500 million); 4) Indigenous Communities ($100 million); 5) Travel Tourism and Outdoor Recreation ($750 million); and 6) Statewide Planning, Research, and Networks ($31 million). Cindi included the links to the Notice of Funding Opportunities (NOFOs) for these grant challenge areas in the Appendix 1 Chat. Cindi also put links in the Appendix 1 Chat to register for two webinars on this EDA grants program on Tuesday July 27th and Thursday July 29th, both at 12:00 pm Arizona time. Cindi added the EDA is allocating funding in this grants programs to support coal communities, and looks forward to working with our task force to work on Arizona funding opportunities from this program. Steve Peters commented that he will include this new EDA grants program on the task force Events & Updates webpage.

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 will meet with KPMG for their work on updating the State Broadband Strategic Plan, as discussed by Jeff Sobotka above.

Holly was in Navajo County recently meeting with a library. Navajo County libraries have challenges with Internet access, and our task force work is very relevant for them. The Navajo County Show Low Librarian listened to Milan Eaton's recent presentation (organized by Steve Peters) on the FCC Emergency Connectivity Fund (ECF), and would like to follow up on that.

Telehealth Update

Janet Major, Associate Director of Education & Facilities for the Arizona Telemedicine Program (ATP) and Chair of the United States Distance Learning Association (USDLA), reported on her recent telehealth activities.

The Arizona Telemedicine Council held its 99th quarterly meeting last week, and will hold its 100th meeting in October. Former State Senator Bob Burns is co-chair of the Arizona Telemedicine Council.

The ATP has created a FAQ sheet on the Telehealth Omnibus Bill (HB 2454) and will provide an update on this bill on July 28th, which will include information on licensure. See Janet's link in the Appendix 1 Chat to register for this webinar.

There will be an upcoming Virtual Telehealth Office Hour shortly to share information and answer questions about the FCC ECF program (ECF applications window closes August 13th).

Janet thanked the Arizona State Library and state libraries for all the work they do on grants programs.

ADE Update

In the absence of Sophia Mayberry, Project Manager in the Office of the Superintendent of Public Instruction at the Arizona Dept. of Education (ADE), Steve Peters reported that Sophia sent him the new ADE Technology Task Force report on the digital divide in rural Arizona. Mark Goldstein put a link to this report in the Appendix 1 Chat.

Mark noted that the bipartisan "Securing Universal Communications Connectivity to Ensure Students Succeed" Act was introduced on July 22nd to extend the Emergency Connectivity Fund (ECF) by five years and provide $8 billion per year to schools and libraries for student off-campus connectivity. See Mark's post in the Appendix 1 Chat on this.

ACC Update

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

Lea explained that the ACC regulates utilities, and has some limited jurisdiction over telecommunications service providers.

The National Association of Regulatory Utility Commissioners (NARUC) Broadband Expansion Task Force, in which Lea participates, met on July 17th in Denver and passed their broadband resolutions report, which will be sent to the FCC. Steve Peters noted that there is a link to this report (which has been discussed at previous task force meetings) on the task force Events & Updates webpage. Lea noted that Cox Communications delivered a presentation to the NARUC task force on federal grants programs, which she will provide to Steve. Lea commented that one of the recommendations in the report is that the FCC ensure that broadband providers who receive federal funding meet their committed obligations, and that there is emphasis in the report on enhancing broadband coordination such as being done by our State Broadband Director and task force. Mark Goldstein asked if other states are reforming their Universal Service Funds to support broadband in rural areas, and Lea replied that about six states have

done this but there are a lot of jurisdictional issues regarding the role of state public utility commissions vs. state legislatures. Jeff Sobotka thanked Lea for her leadership at the ACC to attract new telecom service providers to Arizona, which will be important as Arizona works aggressively to expand broadband services in the next 18 months.

Lea also reported that she met with the Pascua Yaqui Tribe's Development Corporation, and will let them know about the NTIA Tribal Broadband Grants program.

Kirk Busch asked about the APS proposal to fund coal community transitions. Lea responded that utilities are having conversations with coal-impacted communities, and she has set up an ACC docket to capture best practices on this and collect best practices around the nation. Lea added that there are again issues of the role of the ACC vs. the state legislature on this. Jeff Sobotka commented that SunZia, who are building power transmission lines in Arizona, are involved in this and considering deploying dark fiber. Jeff supports getting all the state's electric utilities (APS, SRP, Tucson Electric Power, and rural electric co-ops) involved in deployment of broadband infrastructure or services.

Arizona Technology Council 2022 Public Policy Guide and "Lighting Up the Future Project

Mark Goldstein, Chair of the Arizona Telecommunications & Information Council, reported that he is working on the broadband state and federal sections of the Arizona Technology Council (AZTC) 2022 Public Policy guide, and requested comments from task force participants on updating last year's sections. See Mark's link in the Appendix 1 Chat to view the 2021 AZTC Public Policy Guide, and Steve has posted the broadband sections on the task force Events & Updates webpage. Mark added that Jeff Sobotka will be working with Mark this year on writing the broadband sections, and plan to have this completed by October.

Mark noted the "Lighting Up the Future" Project (discussed at previous task force meetings) hosted by ASU, The Institute for Digital Progress, ACA, and Sun Corridor Network, has a new web landing page. This webpage has published an article about their recent three roundtables on the Availabilty Gap, the Adoption Gap, and the Utilization Gap. See Mark's post in the Appendix 1 Chat about this.

Municipal/Community Networks Presentation and Panel Discussion

Karen Ziegler (Principal of Karen Ziegler Consulting Services and retired from the State of Arizona two years ago) organized a presentation and panel discussion on municipal/community networks with John Lucas (President of Community Broadband Advocates and former CIO of Graham County for 22 years) and Paul Ross (Associate Vice President and CIO of Phoenix College who has worked in educational information technology for 25 years). Municipal/Community Networks have become increasingly popular solutions to provide broadband Internet access to unserved or underserved communities. John Lucas delivered the presentation, which will be posted on the task force website, and Paul and Karen participated in the panel discussion. Following is a summary of key points from the presentation and panel discussion.

John explained the three business model options for municipal/community networks:
1) Carrier-Owned
2) Community-Owned
3) Hybrid

John discussed the Pros and Cons of each business model option.

The Carrier-Owned Option has been the standard model for Arizona communities in the past, where the carrier owns, builds, and manages the network. Some areas in Arizona have been well-served by this approach, and others have not been. Pros of this option are: it requires no community involvement/management; funding is managed by the carrier; maintenance/repairs/customer servicing and support is provided by the carrier. Cons of this option are: the community has no control on which areas are serviced or technology used; all profits are retained by the carrier; carriers control download/upload Internet service speeds; and community funding provided in grants and tax breaks are retained by the carrier.

In the Community-Owned option, the community owns, builds, and manages the network. Pros of this option include: community owns all assets and decides on the technology used; all fees and incomes go to the community; community can adopt an Open Access Network to encourage multiple ISPs to provide service over the community network that drives competition and lowers prices; and services are like a utility reaching all end-users in the community. Cons of this option are: the community must finance, manage, and maintain the network; services must be billed, managed, and maintained as part of the community utility system; a very low debt load must be maintained and funds set aside for network replacement every 10 – 15 years.

The Hybrid Option is where the community enters into a joint venture with a 3rd party to own and manage the network, such as may be done by an electric co-op with a middle-mile provider. The pros of this option are: costs and risks are shared by the community and 3rd party; the 3rd party may provide grant matching funds for the infrastructure build; the fees and income are shared by the community and 3rd party; community can adopt an Open Access Network to encourage multiple ISPs to provide service over the community network that drives competition and lowers prices; and services are like a utility reaching all end-users in the community. Cons of this option are: the community and 3rd party must negotiate a working relationship and equitable division of cost and profit; ownership of grants is shared between the community and 3rd party; and the 3rd party has input on the direction of the network.

John showed a flow diagram of the relationships in a Community-Owned Open Access Network among the owner, operator, retailer, and end user. The owner funds construction of the network infrastructure and is responsible for grants and loan servicing. The operator is hired by the owner through competitive bids to oversee and maintain the network, and supports wholesale network services leased to retailers. The retailer purchases bandwidth resources on the network and sells customer services such as Internet and VoIP to the end-users, and provides end-users with support. The end-user is the customer of the retailer who bills them.

Paul Ross noted there are certain states where communities are prohibited from offering their own community networks (see Paul's link in the Appendix 1 Chat about this). Paul stated that community networks require building partnerships with various players: local ISPs, non-profit organizations who have community relationships, school districts, and tribal communities. In a large city, various city departments must be consulted and need to bridge solutions between the departments. Paul commented that municipal networks involve a constant learning process on structures, processes, regulations, and technologies. He added there are great resources to support such networks (See Paul's links in the Appendix 1 Chat).

Mark Goldstein noted that the task force's November 2020 report included a review of business model options for community networks in Appendix A. He added there is another option with no ownership where residences and businesses open up a secondary Wi-Fi channel to be shared with community users.

John Lucas wanted to ask Cindi Ptak about whether the new EDA grants program mentioned above would allow public-private partnerships (Cindi was not present at that time). Karen Ziegler and Jeff Sobotka stated that the EDA grant funding must go to a government entity so it must be a community-owned network. Jeff commented that he likes the Mohave Electric Co-op model, and communities should work with knowledgeable consultants on this. Jeff added that the ACA does not tell communities what to do, just supports them in their broadband development.

Steve Peters asked if the state legislature supports municipal/community networks. Jeff responded that the state legislature is supportive of communities developing broadband solutions, but the key is to look at each community individually and what works best for them. Mark Goldstein commented that it is less likely that incumbent service providers would oppose these community networks than they did in the past.

John Kelly asked if communities require capabilities for billing beyond their usual utilities billing such as for water. John Lucas responded that broadband billing is not just a matter of sending a bill out but is more involved, requiring interfaces into the back end of the network. John Lucas added that there must be a dept. that can handle broadband billing, and he generally encourages small communities to outsource broadband billing and rolling trucks. Mark Goldstein added that community networks must support billing, provisioning and changing circuits, and trouble-tickets and resolution.

Gene Carl, Sales Manager for Cox Business, stated that the presentation did not include a discussion of the critical issue of the costs of building the network. He stated that it cost $30 - $100 per square foot (about $0.5 million per mile) for digging trenches and laying of fiber. Cox has invested $1.5 billion in their network in the last five years. Gene emphasized that community networks are an expensive proposition and the costs must be clearly understood by communities.

John Lucas and Karen Ziegler concluded saying there is a lot involved in owning and operating community networks, and good partnerships as provided by the Hybrid model are typically the best option.

Steve Peters stated the contact information for the panelists are on the task force meeting announcement and webpage, and there is a lot to follow up on from this meeting.
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Next Steps

The next AZBSN COVID-19 Digital Access Task Force overall meeting will be held on Monday, August 2nd at 7:30 am.

 As noted above: 1) the new EDA grants program webinars will be held on Tuesday July 27th and Thursday July 29th, both at 12:00 pm Arizona time; 2) the Arizona Telemedicine Program webinar on the Teleheatlh Omnibus Bill (HB 2454) update will be held on Wednesday July 28th.

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

Appendix 1: Chat from Zoom

Kate Boettcher to Everyone (7:39 AM)
Hello! I am also new. My name is Kate Boettcher and I work for a nonprofit organization called Rural AZ Action. We are based in Pinal County and advocate for working class, rural communities. Thank you for hosting these meetings!

Manny Villa to Everyone (7:40 AM)
Hi, Kate!

Andrew Bevington to Everyone (7:40 AM)
Welcome, Kate.

Mark Goldstein to Everyone (7:41 AM)
The Arizona Department of Education recently released their Digital Divide in Rural Arizona Report. Press release at https://www.azed.gov/technology/rural-and-urban-digital-divide & report landing page & download at https://www.azed.gov/technology/rural-and-urban-digital-divide FYI. See ADE Technology Hub landing page at https://www.azed.gov/technology-hub for other news & resources.

Mark Goldstein to Everyone (7:43 AM)
The U.S. Department of Commerce's Economic Development Administration (EDA) recently announced funding opportunities for the $3 billion Congress provided the agency in the American Rescue Plan Act (ARPA). Funds are available through six distinct challenges, with separate goals and application processes/deadlines for each. See EDA's ARPA landing page at https://eda.gov/arpa/, EDA's 7/22/21 Bulletin at https://content.govdelivery.com/accounts/USEDA/bulletins/2e95a3b &/or related SSTI article at https://ssti.org/blog/eda-makes-3-billion-available-regional-economies for more details. Cindy Ptak, Arizona EDA representative can be reached at cptak@eda.gov or 206-888-3386 FYI.

Joy Whiting to Everyone (7:49 AM)
Thanks Cindi, this is great!!

Cynthia Ptak to Everyone (7:49 AM)
www.eda.gov/arpa

Manny Villa to Everyone (7:51 AM)
Thank you Cindi... the URL sent out to access EDA.GOV, if you guys click on it won't work because there is a comma at the end... Feel free to use this one: https://eda.gov/arpa/

Cynthia Ptak to Everyone (7:52 AM)
To learn more about EDA and the American Rescue Plan Funding Opportunities, sign up for the webinar at these links:

Tuesday, July 27, 2021 at Noon (PDT):
https://primetime.bluejeans.com/a2m/register/hssjzxtf?utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=

Thursday, July 29, 2021 at Noon (PDT):
https://primetime.bluejeans.com/a2m/register/sxyuhwde?utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=

Jeff Sobotka to Everyone (7:53 AM)
Great update Cindi! I am excited to work with you and the EDA to find transformative projects in AZ that qualify for grants.

Janet Major to Everyone (7:54 AM)
https://telemedicine.arizona.edu/event/webinar/2021-07-28-hb-2454-and-impact-arizona-healthcare-professionals

Cynthia Ptak to Everyone (7:54 AM)
Here are the different programs and links to their NOFOs below:

Economic Adjustment: https://www.grants.gov/web/grants/view-opportunity.html?oppId=334743

Travel Tourism and Outdoor Recreation: https://www.grants.gov/web/grants/view-opportunity.html?oppId=334748

Build Back Better Regional Challenge: https://www.grants.gov/web/grants/view-opportunity.html?oppId=334735

Good Jobs Challenge: https://www.grants.gov/web/grants/view-opportunity.html?oppId=334720

Indigenous Communities: https://www.grants.gov/web/grants/view-opportunity.html?oppId=334764

Statewide Planning Research and Networks: https://www.grants.gov/web/grants/view-opportunity.html?oppId=334728

Erin Carr-Jordan to Everyone (7:57 AM)
Hi, Lea.

Mark Goldstein to Everyone (8:03 AM)
Here's the new California PUC - Universal Service Public Purpose Programs Funding Mechanisms Scoping Memo & Ruling 06_28.pdf FYI.

Mark Goldstein to Everyone (8:03 AM)

[file: California PUC - Universal Service Public Purpose Programs Funding Mechanisms Scoping Memo & Ruling 06_21.pdf]

Kirk busch to Everyone (8:05 AM)
https://ieefa.org/ieefa-u-s-arizona-should-move-quickly-to-approve-precedent-setting-proposal-for-coal-community-transition/

Lea Marquez Peterson to Everyone (8:06 AM)
Feel free to email me at lmarquezpeterson@azcc.gov

Mark Goldstein to Everyone (8:09 AM)
ASU's Lighting Up the Future now has a web landing page at https://www.azidp.org/lighting-up-the-future and just published an article on their recent event series on The Availability Gap, The Adoption Gap & The Utilization Gap at https://uto.asu.edu/features/availability-adoption-utilization-gaps FYI.

Janet Major to Everyone (8:10 AM)
thanks Mark!

Mark Goldstein to Everyone (8:15 AM)
[file: AZTC State & Federal Broadband Policy Brief 2021.docx]

Mark Goldstein to Everyone (8:15 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. Full guide downloadable at https://www.aztechcouncil.org/public-policy/ FYI. Contact me at markg@researchedge.com if you'd like to participate in the core broadband policy review/editing.

Paul Ross to Everyone (8:32 AM)
Municipal Connected Resources

https://broadbandnow.com/report/municipal-broadband-roadblocks/
https://itif.org/publications/2021/06/24/broadband-myths-does-municipal-broadband-scale-well-fit-us-broadband-needs
https://www.supportdemocracy.org/the-latest/the-digital-divide-broadband-access-and-the-pandemic
https://wifi-pilot.tucsonnetlink.com/
https://www.ncsl.org/research/telecommunications-and-information-technology/broadband-2021-legislation.aspx
https://muninetworks.org/communitymap
https://www.bbcmag.com/

Paul Ross to Everyone (8:32 AM)
News
https://arstechnica.com/tech-policy/2021/06/ohio-gop-ends-attempt-to-ban-municipal-broadband-after-protest-from-residents/

https://www.rcrwireless.com/20210713/podcast/5g-talent-talk/the-opportunity-of-municipal-broadband-with-cobbfendley
https://cleanenergy.org/blog/knoxville-city-council-approves-kub-broadband-proposal-and-electric-grid-upgrades-that-come-along-with-it/
https://www.kub.org/about/about-kub/kub-service-areas/century-ii/meter-modernization/broadband-services-public-forum
https://www.bloomberg.com/opinion/articles/2021-07-09/infrastructure-plan-needs-to-give-schoolchildren-better-broadband
https://tucson.com/business/insight-community-wireless-broadband-solution-helps-cities-schools-bridge-digital-divide/article_4b060722-30a8-59dc-b842-2248a814beb6.html

Paul Ross to Everyone (8:32 AM)
Paper
https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=7744520

Book
https://books.google.com/books?id=6IjUDwAAQBAJ&lpg=PR17&ots=WX-fT5s18k&dq=overview%20of%20lte%20spectrum%20sharing%20technologies&lr&pg=PA9#v=onepage&q=overview%20of%20lte%20spectrum%20sharing%20technologies&f=false

Paul Ross to Everyone (8:37 AM)
Here is a MESH network in NYC. https://www.nycmesh.net/

Brian Daly to Everyone (8:40 AM)
https://muninetworks.org/tags/5g
https://innovationatwork.ieee.org/how-will-5g-impact-local-communities/
https://telecominfraproject.com/

Mark Goldstein to Everyone (8:43 AM)
The bipartisan, bicameral Securing Universal Communications Connectivity to Ensure Students Succeed (SUCCESS) Act was introduced on 7/22/21 to extend the Emergency Connectivity Fund (ECF) by five years and provide $8 billion a year to schools and libraries for student connectivity off-campus for continuing to provide Wi-Fi hotspots, modems, routers & Internet-enabled devices to students, staff & library patrons following the coronavirus pandemic. See https://www.markey.senate.gov/news/press-releases/senators-markey-van-hollen-and-rep-meng-introduce-bicameral-legislation-to-close-the-homework-gap-ensure-students-continue-to-receive-needed-internet-access-after-the-pandemic-ends FYI.

John Kelly to Everyone (8:47 AM)
"Thinking at the Congressional Level"!!!

Karen Ziegler to Everyone (8:48 AM)
Ha Ha! John Kelly

Cynthia Ptak to Everyone (8:48 AM)
Thanks everyone!

Tracy Rexroat to Everyone (8:49 AM)

Thankssteve!

Paul Ross to Everyone (8:49 AM)
Thank you Everyone.

Manny Villa to Everyone (8:49 AM)
Have a good one everyone! Thank you!

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

First Name	Last Name	Organization	Job Title	Email	Phone	Mobile
Andrew	Bevington	PCSO	Director, Business & Education Partnerships	andrew.bevington@pima.gov	'+11520724821	
Kate	Boettcher	Rural Arizona Action	Research Assistant	kate@ruralazaction.org		
Kirk	busch	BigData Southwest	ceo	kirk.busch@gmail.com	4803344997	
Gene	Carl	Cox Business	Sales Manager	gene.carl@cox.com	16026904175	
Erin	Carr-Jordan	ASU	Head of Social Impact	ecarrjordan@asu.edu	16023213304	
Oliver	Carter	GenTech	CIO	oliver@gentechsupport.com	6027177047	
Michael	Cohen	Independent	Researcher	mikey1145@yahoo.com	520-390-6647	520-390-6647
Jerry	Crow	Digital Forensics and Cloud Security	Cybersecurity Professional	jerry.crow@computer.org	4804515954	
Brian	Daly	AT&T	AVP	brian.k.daly@att.com	4252417544	
Michael	Edmonds	Thrive in the 05 ; Tucson House	Engagement Specialist	mike.edmonds@tucsonaz.gov	929-244-947	929-244-947
Oris	Friesen	ATIC	Secretary	oris@cox.net	602-689-1084	602-689-1084
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 and Operations	ihathcock@cellularoneaz.com	9285370375	
Holly	Henley	Arizona State Library, Archives and Public Records	State Librarian & Director	hhenley@azlibrary.gov		
steve	hill	president	president	shill@sbca.org		
Cindy	Hogan	United Way of Tucson and Southern Arizona	Digital Equity Project Manager	chogan@unitedwaytucson.org		
April	Jones	Department of Economic Security	Community Engagement Liaison	apriljones@azdes.gov	4804906720	
John	Kelly	Triadvocates	Principal	johnkelly@triadvocates.com	6026390852	
Tarma	Liranzo	Engineered Tower Solutions, PLLC	Program Manager	tarma.liranzo@ets-pllc.com		704-606-4404
Jim	Logan	Simply Bits	Dir, Sales	Jiml@simplybits.com		
John C	LUCAS	Community Broadband Advocates, LLC	CEO	JCLucas@cbadvocates.com	9287926054	928-792-6054
Janet	Major	ATP/SWTRC	Assoc Director	jmajor@telemedicine.arizona.edu	15204030736	
Lea	Marquez Peterson	Arizona Corporation Commission	Chair	lmarquezpeterson@azcc.gov		
Paul	Melcher	Town of Oro Valley	CED Director	pmelcher@orovalleyaz.gov	5207800219	
Randy	Mifflin	Cellular One	ICT SEnior Business Consultant	rmifflin@cellularoneaz.com		
Mauricio	Orozco	Care1st Health Plan Arizona	Community Engagement Manager	morozco@care1staz.com	14802823631	
Lawrie	Prickett	Smith Bagley Inc dba Cellular One of North East Arizona	SFPS	lprickett@cellularoneaz.com	9285370375 x 2413	9282051604
Cynthia	Ptak	EDA	AZ Economic Development Representative	cynthiaptak@comcast.net	4438579837	206-888-3386
Tracy	Rexroat	Az Dept of Education	Program Specialist	tracy.rexroat@azed.gov		
Jenny	Rickel	Native Network, Inc.	COO	jrickel@nativenetwork.com	5093000102	5096615100
Fernando	Roman	Cwa 7026	Executive Vice President	froman@cwa7026.com		
Paul	Ross	Phoenix College	AVP CIO	paul.ross@phoenixcollege.edu		
Andy	Sinclair	Arizona Department of Economic Security Division of Aging and Adult Services	CAPS Capacity Development Coordinator	asinclair@azdes.gov	4802632271	4802632271
Roni	Singh	SFB-CRC	ERN-CRC Director	rsingh@SFB-CRC.org	52039399872	
Jeff	Sobotka	ACA	State Broadband Director	JeffS@AZCommerce.com		
David	Soffer	WANRack	Director of Business Development	david.soffer@wanrack.com		
Paul	Trujillo	NAU	Network Architect Engineer	paul.trujillo@nau.edu	9285232905	
Albert	Velarde	SBI	Senior Account Manager	avelarde@cellularoneaz.com	15057012222	15057012222
Manny	Villa	Sahuarita Unified School District	Director of Information Technology	mvilla@sahuarita.net	5206253502	
Joy	Whiting	Apache County	Apache County School Superintendent	joy.joywhiting@gmail.com	9283377539	
Brad	Zerbe	AZ Government Consulting	Principal	zerbebrad@gmail.com	623-332-0506	623-332-0506
Karen	Ziegler	Karen Ziegler Consulting Services	Principal	karen.ziegler@karenzieglerconsulting.com		