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6 DISCUSSION DRAFT: NATIONAL

7 TELECOMMUNICATIONS AND INFORMATION

8 ADMINISTRATION REAUTHORIZATION ACT OF 2018

9 TUESDAY, JUNE 26, 2018

10 House of Representatives

11 Subcommittee on Communications and

12 Technology

13 Committee on Energy and Commerce

14 Washington, D.C.

15

16

17

18 The subcommittee met, pursuant to call, at 1:15 p.m., in Room
19 2322 Rayburn House Office Building, Hon. Marsha Blackburn
20 [chairman of the subcommittee] presiding.

21 Members present: Representatives Blackburn, Lance, Shimkus,
22 Latta, Guthrie, Bilirakis, Johnson, Flores, Brooks, Collins,

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23 Walters, Costello, Doyle, Welch, Loeb sack, Ruiz, Eshoo,
24 Butterfield, Matsui, McNerney, and Pallone (ex officio).

25 Staff present: Jon Adame, Policy Coordinator,
26 Communications and Technology; Robin Colwell, Chief Counsel,
27 Communications and Technology; Kristine Fargotstein, Detailee,
28 Communications and Technology; Sean Farrell, Professional Staff
29 Member, Communications and Technology; Adam Fromm, Director of
30 Outreach and Coalitions; Elena Hernandez, Press Secretary; Paul
31 Jackson, Professional Staff, Digital Commerce and Consumer
32 Protection; Tim Kurth, Deputy Chief Counsel, Communications and
33 Technology; Lauren McCarty, Counsel, Communications and
34 Technology; Austin Stonebraker, Press Assistant; Jeff Carroll,
35 Minority Staff Director; Jennifer Epperson, Minority FCC
36 Detailee; Alex Hoehn-Saric, Chief Counsel, Communications and
37 Technology, Jerry Leverich, Minority Counsel; Dan Miller,
38 Minority Policy Analyst; Jon Monger, Minority Counsel; Andrew
39 Souvall, Minority Director of Communications, Outreach and Member
40 Services; C.J. Young, Minority Press Secretary.

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41 Mrs. Blackburn. The Subcommittee on Communications and
42 Technology will now come to order. The chair now recognizes
43 herself for five minutes for an opening statement.

44 And I want to welcome you to our hearing on reauthorizing
45 the NTIA. This should be a very familiar topic to everyone in
46 the room as NTIA reauthorization was also my very first hearing
47 as chair of this subcommittee on February 2nd of 2017.

48 Since then, we have held nine hearings related to the work
49 of the NTIA, including an oversight hearing this spring with the
50 new NTIA administrator.

51 I'd like to thank our witnesses for being here. Ms. Hovis
52 has been particularly generous with her time, as this is her third
53 appearance before the subcommittee this Congress on NTIA-related
54 topics.

55 We welcome Mr. Kneuer back to the subcommittee as well, and
56 are pleased to welcome Mr. Gallagher as the fourth former NTIA
57 administrator that we have heard from.

58 We appreciate your perspectives on the agency and also what
59 music you might have been listening to when the NTIA was last
60 reauthorized. Of course, as somebody coming from middle
61 Tennessee, I'll give you a little hint.

62 Mr. Doyle was dancing the line dance in Pittsburgh to the

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63 music of Billy Ray Cyrus and "Achy Breaky Heart." I know it.

64 Mr. Doyle. I kind of doubt that but --

65 [Laughter.]

66 Mrs. Blackburn. I think I am probably right, and it's also
67 -- 1992 is the year that Miley Cyrus was born. This shows you
68 how long it has been.

69 Make no mistake, the bill before us today is a rural broadband
70 bill, and a very important one at that. Many of us hear over and
71 over again about the desperate need to connect unserved Americans,
72 and we are willing to invest toward that goal.

73 But we must ensure good stewardship of those dollars. We
74 know that without federal involvement, rural areas will continue
75 to be left behind. So the best thing that we can do to promote
76 rural broadband is to help the federal government get its act
77 together.

78 Mr. Tonko and Mr. Lance's ACCESS BROADBAND Act would
79 establish a new office within NTIA to do just that. As we saw
80 at our last markup, this bill has strong bipartisan support.

81 There is just one problem: without giving NTIA the resources
82 it needs to start up and follow through on this new function, our
83 subcommittee's vision will never be realized.

84 And the same can be said of our bipartisan consensus that

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85 NTIA should be pulling in the latest information across the
86 government to develop an accurate nationwide map of broadband
87 service to guide deployment efforts.

88 We first gave NTIA this task in the American Recovery and
89 Reinvestment Act of 2009 and we reaffirmed the priority in RAY
90 BAUM'S Act. Our vision was then enacted in the omnibus, but with
91 funding to get the job started, more will need to be done.

92 That's why we have targeted our discussion draft so squarely
93 at giving NTIA both the authority and resources to get to work
94 on these two bipartisan, urgently needed initiatives.

95 Our discussion draft also asserts our leadership and
96 priorities on other important areas in NTIA's purview, including
97 internet governance, supply chain vulnerabilities, and getting
98 our first responders the very best, most accurate location
99 information when someone calls 911.

100 And here is the alternative. For 26 years, we have funded
101 NTIA without an authorization from this committee, and every time
102 we fail here, we fail the jurisdiction of this committee.

103 But with the level of consensus we have on our vision of
104 NTIA's leadership on rural broadband, that would be a real shame,
105 and I don't intend for us to let that happen.

106 So at this time, I yield back the balance of my time and I

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107 yield to Mr. Doyle five minutes for an opening statement.

108 Mr. Doyle. Thank you, Madam Chair, for holding this hearing
109 and thank you to the witnesses for appearing before us today.

110 The National Telecommunications and Information
111 Administration plays a critical role of advising the president
112 on telecommunications and information policy issues.

113 NTIA also manages federal spectrum usage and has been a key
114 partner in freeing up more spectrum for commercial use. In doing
115 so, they have generated tens of billions in revenue for the federal
116 government -- a mission that I strongly believe we can do more
117 to help them accomplish.

118 The AIRWAVES Act, a bipartisan bicameral bill that I've
119 sponsored with Mr. Lance, along with Senators Gardner and Hassan,
120 furthers this mission by freeing up additional federal spectrum
121 for commercial use and paves the way for our nation's 5G future.

122 AIRWAVES frees up a combination of licensed and unlicensed
123 spectrum to meet our nation's diverse spectrum needs. The bill
124 also sets up a new mechanism to help deploy broadband in rural
125 and underserved communities by directing a portion of the spectrum
126 auction revenue to wireless broadband deployment.

127 Madam Chair, this legislation is supported by a number of
128 our colleagues on this committee on both sides of the aisle and

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129 I think it merits consideration by this subcommittee.

130 I think this legislation could go a long way to accomplishing
131 many of our shared goals. Going back to NTIA, the agency also
132 administers grant programs to deploy broadband and other advance
133 technologies, including the very successful \$4 billion BTOP
134 broadband program.

135 The lessons learned from this program led to the creation
136 of Broadband USA, a one-stop shop that helps state, local
137 governments, industry, and nonprofits obtain the tools they need
138 to expand broadband deployment and promote digital inclusion.

139 I am happy to see that the reauthorization draft before us
140 includes Mr. Tonko's bipartisan ACCESS BROADBAND Act, which we
141 voice voted out of this subcommittee two weeks ago.

142 This legislation puts into statute many of the things that
143 NTIA is already doing through the Broadband USA program. I am
144 also happy to be a cosponsor of this legislation.

145 This is a good start, but if we are going to help our rural
146 and underserved communities address their broadband needs, we
147 need to put our money where our mouth is and dedicate more dollars
148 to solving this problem, particularly if we ever want to get people
149 connected in rural and tribal communities as well as in Puerto
150 Rico and other areas suffering from storm-related damage and

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151 outages.

152 Ranking Member Pallone's LIFT America Act sets out \$40
153 billion in funds to help address our nation's broadband
154 shortfalls.

155 This is the kind of commitment we need if we want to address
156 these problems, because if we continue to just sit here, these
157 problems aren't going to solve themselves.

158 The draft reauthorization also directs NTIA to continue
159 working on the national broadband map, another Recovery Act
160 program that, like BTOP, has run out of money.

161 I agree with the majority that having accurate broadband maps
162 is important both for the government and for consumers and
163 communities. We can't solve a problem that we don't know the
164 scale of.

165 Looking at the mapping debacle in the FCC's Mobility Fund
166 II's proceedings demonstrates the need for better data. The
167 agency also represents and advocates on behalf of the United
168 States internationally on matters of internet governance and
169 telecommunications policy.

170 In this time of fractured alliances and tumultuous trade
171 policy, a globally unified free and open internet is more
172 important than ever.

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173 NTIA, as our representatives to a number of these global
174 internet governance organizations, needs to advance that message
175 through what seems to be a great deal of noise from our government.

176 NTIA also does critical spectrum research at the lab in
177 Colorado, which we need to do more to support. They've also been
178 a critical partner in housing and launching FirstNet, our nation's
179 public safety broadband network, which I am happy to note every
180 state has opted into.

181 They have also done good work developing policies on a range
182 of complex technical subjects including privacy, cybersecurity,
183 and the digital economy.

184 Madam Chair, I support this agency and I support giving this
185 agency more resources to accomplish its many missions. I look
186 forward to hearing from the witnesses and working with you on this
187 legislation, and I yield back.

188 Mrs. Blackburn. The gentleman yields back.

189 Mr. Lance, you are recognized on Chairman Walden's.

190 Mr. Lance. Thank you very much, Chairman Blackburn, and our
191 thanks to the distinguished panel for appearing before us today.

192 Following the landmark bipartisan passage of RAY BAUM'S Act
193 earlier this year, which reauthorized the FCC for the first time
194 since 1990, we are now looking to reauthorize the NTIA for the

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195 first time since 1992.

196 I commend the chairman for fulfilling the subcommittee's
197 authorizing duties. I am pleased that the draft legislation also
198 includes the ACCESS BROADBAND Act, which I introduced last year
199 with Congressman Tonko and that we recently reported unanimously
200 out of this subcommittee.

201 The bill would create a new office within NTIA tasked with
202 tracking all federal broadband support programs across several
203 agencies, and ensuring federal broadband funds are used
204 efficiently.

205 It is important to recognize that federal funds for broadband
206 deployment are finite and must be focused on the areas of the
207 country that need them the most.

208 This new office will help make sure that agencies are not
209 duplicating each other's efforts by overbuilding broadband
210 infrastructure.

211 While the standalone bill continues through the committee
212 process, I believe it still makes sense also to include it with
213 the reauthorization language before us today.

214 During my conversations with the NTIA before and after
215 introduction of ACCESS BROADBAND, the agency emphasized the need
216 for additional resources to implement this new office properly.

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217 By reauthorizing NTIA for the first time in 26 years, we
218 provide it with those additional resources.

219 I thank the panel for being with us and look forward to
220 discussing these and other important issues facing the NTIA. I
221 ask unanimous consent from the chairman to enter a letter of
222 support from the Computer and Communications Industry Association
223 into the record.

224 Mrs. Blackburn. Without objection.

225 [The information follows:]

226

227 *****COMMITTEE INSERT 1*****

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228 Mr. Lance. Thank you, Chairman, and I yield back the balance
229 of my time.

230 Mrs. Blackburn. Anyone seeking the balance of the time the
231 gentleman yields back?

232 And Mr. Pallone has not arrived. Is there anyone seeking
233 Mr. Pallone's time? No one seeking Mr. Pallone --

234 That concludes the member opening statements. The chair
235 would like to remind members that pursuant to the committee rules,
236 all members' opening statements will be made a part of the record.

237 We want to thank all of our witnesses for being here today
238 and taking time to testify before the subcommittee. Today's
239 witnesses will have the opportunity to give opening statements,
240 followed by a round of questions from members.

241 Our panel for today's hearing will include the Honorable
242 Michael Gallagher, former NTIA administrator and the current CEO
243 of the Entertainment Software Association; the Honorable John
244 Kneuer, former NTIA administrator and the current president of
245 JKC Consulting; and Ms. Joanne Hovis, the president of CTC
246 Technology and Energy.

247 We appreciate each of you being here today and preparing your
248 testimony for the committee. We will begin today with you, Mr.
249 Gallagher.

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250

You are recognized for five minutes for an opening statement.

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251 STATEMENTS OF THE HONORABLE MICHAEL D. GALLAGHER, CEO,
252 ENTERTAINMENT SOFTWARE ASSOCIATION; THE HONORABLE JOHN KNEUER,
253 PRESIDENT, JKC CONSULTING; JOANNE S. HOVIS, PRESIDENT, CTC
254 TECHNOLOGY AND ENERGY

255

256 STATEMENT OF MICHAEL GALLAGHER

257 Mr. Gallagher. Good afternoon, Chairman Blackburn and
258 Ranking Member Doyle. My name is Mike Gallagher and I am the CEO
259 of the Entertainment Software Association.

260 Today, however, I am here in my capacity as the former NTIA
261 administrator. I served as both deputy assistant secretary and
262 assistant secretary from the years 2001 to 2006.

263 I am also delighted to be here at the side of my good friend
264 and colleague, John Kneuer. He and I overlapped three years
265 together. So, many of the accomplishments that the
266 administration achieved in our space we did together and it's --
267 he was terrific as a team member when we were together and he was
268 even better as an assistant secretary.

269 Our country and NTIA are also richly well served by having
270 David Redl as its new administrator. He has both the energy and
271 the experience to drive the agency where we need to be in a very
272 complex world in front of us.

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273 And before addressing substantive issues, I just want -- I'd
274 like to begin by saying I strongly endorse the committee's efforts
275 to reauthorize NTIA and to focus the agency on the policy
276 objectives that are core to the agency's competencies and
277 expertise.

278 NTIA is a low-cost high-impact agency that plays a vital role
279 in expanding broadband access for all Americans and in protecting
280 the missions of both the military and other government agencies
281 as well as promoting the growth of the private sector through its
282 spectrum management efforts.

283 It also has a great tradition of doing so in a bipartisan
284 manner, which is reflective of the draft that we are here to speak
285 about today.

286 My written testimony specifically points to several issues
287 of very significant importance for NTIA leadership and that enjoy
288 this committee's support.

289 The first is the imperative rural broadband growth. It is
290 important, but as a country, the benefits of broadband technology
291 extend absolutely as far as possible to everyone and that includes
292 taking continued efforts and redoubling efforts to make sure that
293 that remains a key focus.

294 Alongside of that and along with a great track record are

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295 the spectrum policy enhancements -- policy enhancements.

296 Specifically, I point to three areas where NTIA has a history of
297 accomplishing important work and leading the country and the world
298 on how to deploy spectrum policy and, first, is in dynamic spectrum
299 access.

300 Ten years ago, in the 5 gigahertz band, we were able to double
301 the amount of spectrum for wi-fi by using dynamic spectrum access
302 technologies.

303 That same approach could bear significant fruit in the years
304 ahead for the country, and that's both for government and for
305 private sector uses.

306 It's also important that we identify additional unlicensed
307 spectrum. We enjoy the fruits of unlicensed spectrum with all
308 the devices that we carry with us.

309 The continued growth of that is a top priority for NTIA and
310 that's important for us to remain -- have it remain center of
311 target.

312 And then, finally, it's also important to maintain the focus
313 on achieving exclusive private sector spectrum and having more
314 of that come from the federal government to the private sector
315 through auction because of new technologies that make that
316 possible.

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317 I also fully endorse the committee's efforts too on the WHOIS
318 database. It's critical important that the WHOIS database
319 maintain a very high profile in all of our international
320 engagements and that it is a top priority for law enforcement,
321 it's a priority for copyright holders like the industry that I
322 represent, and for other issues relative to cyber-crime.

323 The national broadband map and the creation of the Office
324 of Internet Connectivity and Growth are also tremendous steps
325 forward. I fully support those.

326 Having a central clearinghouse where these programs can be
327 administered in a very efficient way is -- it makes great sense
328 and it's of even higher importance.

329 As forecasted by dozens of witnesses over the last 25 years
330 before this committee, the world is increasingly connected.
331 Broadband has gone from a vision of George Gilder to the reality
332 that's in the hands of each of us and over -- and over 4 billion
333 people around the world.

334 That connected world presents tremendous opportunities and
335 risks, and it's imperative that NTIA be focused and resourced to
336 drive success for all of us in the years ahead.

337 I commend the committee for its draft reauthorization
338 legislation and I look forward to answering any questions.

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339

[The prepared statement of Mr. Gallagher follows:]

340

341

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342

Mrs. Blackburn. The gentleman yields back.

343

Mr. Kneuer, you are recognized for five minutes.

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344 STATEMENT OF JOHN KNEUER

345

346 Mr. Kneuer. Good afternoon, Chairman Blackburn, Ranking
347 Member Doyle, Ranking Member Pallone, members of the
348 subcommittee.

349 It's an honor to be back here before you. My name is John
350 Kneuer. From 2003 to 2007, it was my privilege to serve first
351 as the deputy assistant secretary and then as the assistant
352 secretary at NTIA.

353 Since leaving government in 2007, I've worked in the private
354 sector as a board member, consultant, advisor to companies and
355 institutions with an interest in domestic and international
356 telecommunications.

357 But I am appearing before you today in my personal capacity
358 and my testimony and comments are my own.

359 I would like to start by commending you, Chairman Blackburn,
360 and the committee for undertaking the hard work of the
361 reauthorization.

362 In my experience, even though NTIA is explicitly an executive
363 branch agency and the assistant secretary serves at the pleasure
364 of the president, the exercise of government authority in the
365 service of the citizenry is most effective and accountable when

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366 there is an established clarity of mission agreed upon by both
367 the administration and the sources of its funding in the Congress.

368 Regular reauthorization of executive branch agencies can
369 provide that clarity and, following up on Mike's comments about
370 David Redl, a proud alumni of this committee, I think that
371 experience and his judgement -- he's someone who's particularly
372 well suited to navigate both the executive branch equities while
373 responding to the appropriate oversight of Congress.

374 This is my second opportunity to testify before this
375 committee on the subject of the NTIA reauthorization. At last
376 year's hearing, the focus of my testimony was on the dual
377 responsibilities of NTIA as both the principal advisor of the
378 president on telecommunications policy as well as the management
379 of the federal radio government spectrum.

380 Because of the demands of this dual responsibility, NTIA has
381 developed a specialized technical competency that provides
382 expertise to policymakers across the government with interest in
383 technical matters in everything from spectrum to internet
384 governance to the broadband economy.

385 But in addition to this technical expertise, NTIA has
386 developed a valuable expertise in coordinating interagency
387 equities in the service of broader government priorities.

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388 I believe it is this interagency policy coordination
389 function that is most relevant to the draft legislation under
390 consideration.

391 While the legislation being considered covers a broad range
392 of issues before NTIA -- and I will endeavor to answer any
393 questions on any of these subjects -- for purposes of time I will
394 focus my testimony on those sections of the legislation where I
395 believe my experience is the most relevant.

396 So from time to time, NTIA has been granted authority to
397 administer large-scale infrastructure grant programs intended to
398 advance access to communications networks for underserved
399 communities.

400 Sometimes these are targeted and limited in scope, like the
401 public safety grant programs, and sometimes more widespread, as
402 in the Broadband Technology Opportunities Program.

403 However, in each instance, NTIA was required to coordinate
404 with institutions across the government for either execution or
405 measurement of the effectiveness of this program.

406 This experience should enable NTIA to effectively coordinate
407 the broadband map as well as the Office of Internet Connectivity
408 and Growth.

409 One of the challenges in effectively distributing broadband

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410 infrastructure funds is accuracy in measuring the extent to which
411 broadband networks are already being deployed by market
412 participants.

413 Scarce resources should be deployed where there are actual
414 gaps in coverage rather than in competition with private capital.
415 But because different government agencies gather information in
416 different formats from different sources, it makes sense to have
417 a single repository for all this information that can be
418 synthesized into a format that can be consistently applied and
419 relied upon by various grant and loan-issuing agencies across the
420 government. I believe NTIA has the experience and the personnel
421 to perform these functions.

422 With regard to the sense of the Congress on cybersecurity
423 and supply chain vulnerabilities, NTIA is particularly well
424 suited to engage in these important matters that cut cross
425 commercial interests as well as important government equities.

426 By providing the perspective of industry into the
427 interagency process, NTIA can help bridge the gap between the
428 executive branch interests with national and homeland security
429 responsibilities and keep private sector interest so that they
430 all support our collective cyber defenses.

431 Similarly, NTIA can serve as a conduit from government

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432 agencies with cyber responsibilities to the private sector to
433 ensure that information flows in both directions to maximum
434 effect.

435 In addition, from its position within the Department of
436 Commerce, NTIA has access to the broad resources of the
437 International Trade Administration and the Bureau of Industry and
438 Security on supply chain matters that implicate either our trade
439 agreements or the intersection of national security and high
440 technology.

441 Finally, with regard to the collection and availability of
442 WHOIS data, WHOIS data has been a foundational feature of the
443 domain name system.

444 As far back as 1982 before there was an internet, ARPANET
445 had WHOIS requirements so people could understand who was
446 supporting the network. WHOIS requirements were included in
447 every memorandum of understanding between NTIA and ICANN from 1998
448 to 2016.

449 With the transition of the IANA contract, timely,
450 unrestricted, and accurate WHOIS remains a feature of ICANN's
451 process. The sense of the Congress underscores this important
452 role.

453 Historically, NTIA has been the U.S. government entity in

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454 charge of protecting WHOIS obligations and I believe NTIA remains
455 the proper repository for this policy coordination and advocacy
456 before ICANN.

457 Again, I appreciate the opportunity to testify. I will
458 remain available to the committee throughout this process as you
459 consider the authorization and I will look forward to your
460 questions.

461 [The prepared statement of Mr. Kneuer follows:]

462 *****INSERT 3*****

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463

Mrs. Blackburn. The gentleman yields back.

464

Ms. Hovis, you are recognized.

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465 STATEMENT OF JOANNE HOVIS

466

467 Ms. Hovis. Thank you, Chairman Blackburn, Ranking Member
468 Doyle, members of the subcommittee.

469 I am Joanne Hovis and I am president of CTC Technology and
470 Energy. I am also CEO of the Coalition for Local Internet Choice,
471 a nonprofit entity that brings together public and private
472 entities that believe solving our nation's broadband challenges
473 requires a full range of options including locally-driven efforts
474 to deploy networks and create public-private partnerships.

475 My work focuses on assisting state, local, and tribal
476 government to build broadband strategy and plans and on helping
477 them to develop public-private collaborations that improve
478 broadband infrastructure and services, address affordability
479 challenges, and provide digital education to enable members of
480 the community to maximize the benefits of the broadband internet
481 in their lives.

482 I've encountered NTIA in my state and local level broadband
483 work throughout the country for over a decade. My comments today
484 focus on the important and successful role NTIA has played in
485 broadband policy and expanding broadband service and device
486 availability and in expanding digital literacy.

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487 As you consider this reauthorization, I encourage you to
488 think expansively about NTIA's important role in building
489 broadband capabilities in infrastructure, going forward.

490 NTIA has this important role to fill in improving the
491 broadband environment nationally but it also has unique expertise
492 and experience within the federal government to do so and this
493 role is essential because our work of expanding broadband access
494 is far from done.

495 Large areas of rural America as well as significant sections
496 of our urban communities lack adequate affordable broadband.

497 Addressing these gaps in access and opportunity requires
498 expansive thinking about funding new infrastructure and
499 capabilities, enabling new educational and inclusion programs,
500 and supporting access to computers and other broadband-enabled
501 devices.

502 For that reason, I commend you on the current reauthorization
503 efforts as well as on the ACCESS BROADBAND Act, the LIFT America
504 Act, and other pending legislation focused on access, urban
505 deserts, and rural broadband funding.

506 There is a critical role for federal, state, and local
507 entities in solving these problems and filling these gaps as well
508 as for private sector companies and other stakeholders, and NTIA

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509 is uniquely experienced at creating bridges among all these
510 entities.

511 As is discussed in greater detail in my written comments,
512 NTIA has really done a terrific job over many years in grant
513 making, in convening stakeholders, in stimulating public-private
514 collaboration and partnerships, and in providing technical
515 assistance through the Broadband USA program.

516 I refer to my written testimony, which goes into detail on
517 many of those topics, but let me share with you, based on my
518 personal experience, some of why I think NTIA's track record in
519 building funding programs to support expansion of broadband,
520 particularly in rural areas, is -- the track record is very sound.

521 In particular, through the BTOP program, which was
522 referenced by my fellow panellists here, there was an impressive,
523 laudable, and frankly, less recognized -- in Washington than it
524 deserved -- effort by NTIA.

525 In a short period of time after passage of the Recovery Act,
526 the team at NTIA built a robust and proven grant program and then
527 successfully administered it in subsequent years with remarkably
528 little controversy.

529 In fact, the program and NTIA's administration of it was
530 welcomed with enormous enthusiasm and appreciation in communities

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531 impacted by it throughout the country.

532 This enthusiasm resulted in part from the extraordinary
533 hunger for better broadband in significant parts of our country
534 and in part from the way that NTIA had consulted with communities,
535 companies, first responders, educators, and other stakeholders
536 and built a program that was optimized to confer the greatest
537 possible benefit in unserved and underserved areas.

538 At the same time, the program is also thoughtfully and
539 efficiently designed to focus the federal investment on middle
540 mile infrastructure to key anchor institutions such as
541 firehouses, police stations, and remote government facilities
542 while incenting private sector investment in the last mile to
543 reach homes and businesses.

544 The vision was successfully realized in significant parts
545 of the country. I visited or observed dozens of the projects that
546 NTIA funded in this way and let me share just a couple of quick
547 examples in my brief remaining time.

548 An example that may be of real interest is rural Garrett
549 County in far western Maryland, a remote Appalachian community
550 deeply impacted by the decline in the coal economy, which has
551 struggled to get broadband to -- in a number of its remote
552 mountainous areas and, as a result, has also struggled to attract

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553 and retain businesses and teleworkers.

554 The county's current success in attracting a private partner
555 to fund and deploy last-mile residential service in the most
556 remote and inaccessible mountain areas.

557 It's testimony, in part, to NTIA's efforts. NTIA granted
558 funding to a state-led middle-mile network that reached many of
559 the most remote schools, libraries, and public safety facilities
560 in the state, and county leaders then further invested in
561 additional fiber both to reach additional remote schools and to
562 serve as a platform for last-mile deployment.

563 In 2015, a private partner agreed to leverage some of that
564 fiber and local funding in order to build a fixed wireless network
565 that will provide the potential of service to up to 3,000 currently
566 unserved homes and hundreds of homes are already receiving service
567 under this network.

568 I am grateful for your attention and I refer you to my written
569 testimony for more examples.

570 Thank you so much.

571 [The prepared statement of Ms. Hovis follows:]

572

573 *****INSERT 4*****

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574 Mrs. Blackburn. The gentlelady yields back, and before we
575 move to questions we will now recognize Mr. Pallone for his
576 opening.

577 Mr. Pallone. Thank you, Madam Chairman. The National
578 Telecommunications and Information Administration, or NTIA,
579 plays a critical role in establishing and coordinating
580 communications policies for the administration both domestically
581 and internationally.

582 Given the importance of the agency, I am disappointed that
583 my Republican colleagues have circulated a discussion draft that
584 does little more than reintroduce Congressman Tonko's ACCESS
585 BROADBAND Act, which the subcommittee recently marked up and has
586 already reported to the full committee.

587 Mr. Tonko's bill establishes an office in NTIA to streamline
588 the management of federal broadband resources and I hope that this
589 is not an effort to strip this bill away from Mr. Tonko, who worked
590 hard to advance this important legislation.

591 Besides the contribution from Mr. Tonko, the majority's bill
592 fails to provide NTIA the authority and direction it needs to
593 address America's 21st century needs.

594 The administration acknowledges the need for broadband
595 infrastructure investment. But President Trump and the

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596 Republican majority have failed to act.

597 We must think big in reauthorizing the NTIA. In May of last
598 year, committee Democrats introduced the LIFT America Act, which
599 provides \$40 billion over five years to deploy secure and
600 resilient broadband to 98 percent of the country through a program
601 administered by the NTIA.

602 The LIFT America Act ensures that every state has access to
603 funds to help bridge the digital divide that remains in too many
604 parts of this country, both rural and urban.

605 As the Internet of Things continues to expand, we should
606 increase NTIA's efforts to address cybersecurity threats.

607 We must ensure that the Trump administration's alienation
608 of our international allies does not hamper our ability to protect
609 an open internet and the free flow of information from Russian
610 and Chinese efforts at the International Telecommunications Union
611 and other forums.

612 We must also ensure that the NTIA has the resources and
613 authority needed to improve public safety communications.
614 Democratic members have actively engaged on many of these issues
615 and we should consider them as part of any reauthorization.

616 Now, while limited on substance, the discussion draft does
617 increase NTIA's authorization level to the last Obama

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618 administration request.

619 But this does not reflect the additional tasks and duties
620 we now seek, and unfortunately, the most important witness for
621 this hearing -- Administrator Redl -- is not here to answer
622 questions regarding whether the NTIA has the authority and
623 resources necessary to achieve its current mission, much less the
624 task it should be pursuing.

625 So before we move forward with the reauthorization, we need
626 the current administration's views on the draft legislation.

627 And finally, Madam Chairman, as a result of the Trump
628 administration's policies, thousands of children are still
629 separated from their parents and we still do not have any
630 sufficient answers about how they're going to reunite -- reunify,
631 I should say, these families.

632 Parents have been left wondering where their children are,
633 whether they are being treated okay, and when they will see them
634 again.

635 Efforts of parents seeking to call their children to hear
636 their voices and comfort them have been stymied because of
637 unconscionable rates charged at the detention centers, and I
638 visited one of these on Father's Day in Elizabeth, New Jersey.

639 And according to news reports, phone calls at one facility

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640 cost \$8 a minute, which I think is outrageous. I think it's bad
641 enough that the Trump administration separated more than 2,300
642 children from their parents, but now through these detention
643 facilities asylum seekers are being extorted.

644 These outrageous rates are one more insult as desperate
645 parents try to weave their way through the bureaucracy to find
646 their children and it's inexcusable.

647 So I would call on the Trump administration to provide
648 detained parents free phone calls to reach their children. It's
649 the least they can do for a policy that never should have been
650 instituted in the first place.

651 I would hope the administration would take this action on
652 its own but, failing that, I will be introducing a bill today
653 directing the FCC to reinstate the recent inmate calling order
654 which covers immigration detention facilities and to promulgate
655 rules to enable detained parents to call their children without
656 charge.

657 I would also like to reiterate the request that every
658 Democratic committee member made last week -- they will hold a
659 hearing on how these children are going to be reunited with their
660 parents.

661 The Energy and Commerce Committee's oversight

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662 responsibility must include holding a hearing on this
663 catastrophic policy and implementation failure, and I think that
664 Secretary Azar should testify before us.

665 I thank you, Madam Chairman, for letting me use this time
666 and I yield back.

667 Mrs. Blackburn. The gentleman yields back, and this
668 concludes our statements from our witnesses.

669 And at this point, we will move into the Q and A portion of
670 our hearing and I recognize myself for five minutes.

671 At our very first NTIA reauthorization hearing, I had
672 commented about my concern of the lack of coordination when it
673 came to federal resources in different agencies that were trying
674 to implement components to address broadband infrastructure or
675 access adoption rates, research, things of that nature.

676 And, of course, our draft legislation includes the Office
677 of Internet Connectivity. So what I would like to hear from each
678 of you is this -- how do you think this office can and should work
679 to coordinate all of these efforts.

680 And Mr. Gallagher, we'll start with you.

681 Mr. Gallagher. Thank you, Madam Chairman. So, for
682 purposes of bringing all of this under one roof or putting it in
683 one place, then having an inventory of the resources that are being

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684 spent right now is vitally important.

685 NTIA has accomplished similar interagency missions in the
686 past. OSM, the spectrum agency, works that way. The way it
687 administers its duties under the -- for ICANN are also done in
688 interagency coordination basis.

689 There is a DNA component where their capabilities are prone
690 to be able to do this very well. It's also important as a taxpayer
691 that we see where -- how much the dollars are, where they're going,
692 and then what's being achieved with them, and that can only be
693 done when there's one single view that's administered from over
694 the top.

695 The encouragement that I would add as this discussion evolves
696 is that there's a strong leadership role from the White House and
697 from OMB.

698 The Office of Management and Budget has significant
699 influence and impact on all of the agencies. So NTIA, during the
700 time when I was there, when we would have challenges, it wasn't
701 because of lack of will at the Department of Commerce or a lack
702 of competence of the team that was there.

703 It was because other agencies were reluctant to participate
704 because it wasn't in their mission to do so or in their interests,
705 and I think aligning those interests through guidance to those

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706 agencies, having the White House role be strong, having the role
707 of inventory clarification value to the taxpayer, moving that
708 through as part of the prism that this would be looked through,
709 would be steps in the right direction.

710 Mrs. Blackburn. Thank you. Mr. Kneuer.

711 Mr. Kneuer. I agree with all of that. The challenge is that
712 the sources of funds reside in different departments sometimes.

713 So you have got the RUS in the Department of Agriculture.
714 We've got NTIA and others that issue grants. You've got -- even
715 in Agriculture beyond RUS. Sometimes in DHS there are emergency
716 preparedness funds that wind up being devoted to broadband
717 services.

718 Again, I think this gets to the point of the importance of
719 reauthorization. Giving NTIA the responsibility and ability to
720 bring into one place all of the different ways that the government
721 measures all the -- all of the different ways the government is
722 spending money doesn't just help them more efficiently deploy the
723 money through the executive branch.

724 But it gives the Congress visibility into how the money is
725 being spent, is it getting to the part of the communities that
726 it needs to. So you can make future appropriations authorization
727 decisions based on affected information and data.

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728 So, again, I think NTIA has the resources and experience of
729 doing that. Having it in NTIA is the most logical of any other
730 places that you could put it.

731 In terms of using that information inside the executive
732 branch to make the right decision, I agree with Mike -- a lot of
733 that has to come from OMB riding above any of the individual
734 agencies.

735 But all of those decisions will be -- will be better targeted
736 if you have better information. And the way to do that, I think,
737 is this legislation.

738 Mrs. Blackburn. Okay. Good. Ms. Hovis.

739 Ms. Hovis. Thank you, Chairman Blackburn. I'm very much
740 in agreement here with my fellow panellists about the incredible
741 importance of this set of functions and NTIA's ability to do so
742 and its ability to bring to bear experience in order to do so.

743 And I could say that we have all noted the same challenges
744 in this very large and complex entity that is the federal
745 government with multiple entities charged with different kinds
746 of responsibility for funding, mapping, engaging what is
747 happening with regard to broadband.

748 I think that better and more comprehensive and more
749 centralized collection of data and accurate data and granular data

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750 would be a massive, massive contribution to building important
751 information and understanding of what is actually happening with
752 regard to broadband.

753 And if we are able to understand through a central entity
754 such as NTIA not only what all the existing funding programs are
755 and what they are funding and where, but also where there has been
756 verification and enforcement that that funding was used as
757 intended and that the capabilities that were intended to be funded
758 by the federal government were actually deployed as well as
759 accurate and granular mapping. It would be an enormous
760 contribution and enable development of very good policy.

761 Mrs. Blackburn. The gentlelady yields back. Mr. Doyle,
762 you are recognized for five minutes.

763 Mr. Doyle. Thank you, Madam Chair. Mr. Kneuer and Mr.
764 Gallagher, as former NTIA administrators, so I am just curious
765 how you think the NTIA will be navigating upcoming global internet
766 governance discussions such as the one -- the ITU's upcoming
767 conference in Dubai.

768 Given our administration's strained relationship with our
769 allies, its increasingly hostile relationship with China, and our
770 relationship with Russia, which I am really not sure how to
771 characterize, how do you think that's going to go?

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772 Mr. Kneuer. Traditionally, the ITU and some of the telecom
773 issues really have been driven by the technical staff and, with
774 a few exceptions, the --

775 Mrs. Blackburn. Mr. Kneuer, can I get you to talk directly
776 into that mic? Thank you.

777 Mr. Kneuer. Yes. Sorry. The broader geopolitical issues
778 rarely, but not never, get involved. I think the ability of NTIA
779 to collect the technical expertise of various government
780 agencies, so whether it's been the Defense Department or the intel
781 communities or others who rely on spectrum and telecommunications
782 engage in sort of robust bilateral discussions with our allies
783 and with interested parties has been sort of the way this has gone.

784 So even though the meetings themselves may take place in
785 Dubai, our diplomats and NTIA staff have been, typically, in
786 pretty constant contact with their counter parties in other
787 governments.

788 So it's not to say that the geopolitical challenges don't
789 enter into these multilateral negotiations. These are, after
790 all, very often U.N.-sponsored delegations.

791 But I think the technical matters typically speak for
792 themselves and historically and, hopefully, ideally the larger
793 geopolitical issues stay in the background.

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794 Mr. Doyle. Thank you. Ms. Hovis, given the success of the
795 Obama administration's BTOP program, do you think that the type
796 of investments laid out in Ranking Member Pallone's LIFT America
797 Act or the share of the spectrum auction revenue set aside for
798 wireless broadband deployment by the AIRWAVES legislation would
799 significantly contribute to closing the broadband divide in this
800 country.

801 And at what point do you imagine we will close the broadband
802 divide in this country if we simply continue on our current path?

803 Ms. Hovis. On our current path, we are not going to close
804 the divide and we may actually, in some areas, exacerbate it
805 because the realities of the economics of broadband are that
806 private investment funds will go where they will see the greatest
807 return.

808 That's how the private sector works. It's how we want it
809 to work and how we want our system to work, and that means that
810 we are likely to see increased investment in enhanced capabilities
811 -- 5G, more deeper fiber, et cetera -- in certain kinds of suburban
812 and urban areas, in certain urban areas with high income levels,
813 average income levels, for example, but not in rural areas, not
814 in areas of low population, and not in certain areas of low income.

815 And as a result, we may actually see a significant

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816 exacerbation of the digital divide over time. So yes, I very much
817 agree that the LIFT America Act and certain kinds of
818 appropriation, the funding for rural broadband and for closing
819 -- for solving urban deserts would be enormously helpful and I
820 think, in fact, it's critical.

821 And the track record has been very, very solid and I hope
822 -- you know, my example of the Appalachian community in western
823 Maryland that I talked is one of hundreds of examples, I think,
824 of communities that have been enormously benefited by that
825 investment and by the way it was administered by NTIA and I
826 certainly personally hope we'll see a good deal more because I
827 spend a lot of my time on the road in rural America and I see
828 enormous, enormous gaps that we have a long way to go in filling.

829 Mr. Doyle. Thank you very much. Mr. Gallagher, I know
830 you're here in your capacity as a former NTIA administrator, but
831 you're always the CEO of the Entertainment Software Association
832 and -- which represents the video game industry -- a industry
833 that's now larger than the film and music industries combined.

834 Video games these days outperform the biggest Hollywood
835 blockbusters and, increasingly, video games are downloaded
836 online, and online games are become spectator events and the
837 future of the industry seems to be shifting from consoles to the

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838 cloud, all of which rely on a free and open network that is fast,
839 has low latency and high capacity.

840 I know ESA filed in federal court seeking to intervene in
841 the case against the FCC's repeal of net neutrality rules. That
842 filing said, and I quote, absent these protections, ESA and its
843 member companies will have no effective legal recourse against
844 broadband provider conduct that impairs consumers' online video
845 game experiences.

846 So my question is whether you and your association oppose
847 the repeal of the net neutrality rules as your association's legal
848 filing indicates and whether you support restoring those rules,
849 as your filing indicates, as I am trying to do with my CRA
850 resolution.

851 Mr. Gallagher. First, I really enjoyed the introduction to
852 the question.

853 [Laughter.]

854 Terrific. And then as to the specifics on net neutrality,
855 yes, we filed the motion to intervene in that litigation because
856 it's important for us, on behalf of our members, to make sure that
857 we do have an open and free and high capacity and high quality
858 internet available for gamers and game makers. We've been clear
859 about that for years.

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860 And what we've also seen is that the pendulum swinging back
861 and forth between whoever controls the pen at the FCC causes
862 uncertainty for investors.

863 It causes uncertainty for those who are seeking to make the
864 economy of tomorrow happen in a digital way, and the world is very
865 much connected. These opportunities need to be present and
866 thriving here in the U.S.

867 What we've done is --

868 Mr. Doyle. Madam Chair, I see our time has expired. I
869 would like to ask unanimous consent to add ESA's court filing to
870 the record.

871 Mrs. Blackburn. Without objection.

872 [The information follows:]

873

874 *****INSERT 5*****

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875 Mrs. Blackburn. Mr. Lance, you're recognized for five
876 minutes.

877 Mr. Lance. Thank you, Chairman. Mr. Gallagher and Mr.
878 Kneuer, you both mentioned in your testimony the importance of
879 giving the NTIA more resources. Could you please expand on this,
880 using your own experience leading the agency and in the context
881 of how its mission and duties have evolved since the last time
882 it was reauthorized?

883 I am also interested specifically in your perspective on
884 whether or not these additional resources are necessary to
885 implement the Office of Internet Connectivity and Growth as the
886 NTIA has indicated to me?

887 Mr. Kneuer.

888 Mr. Kneuer. So I think there is adequate staffing. As the
889 BTOP program winds down, those moneys are spent. The staff that
890 were administering that are the same staff that I think would
891 likely be involved in the new office contemplated by this
892 legislation.

893 I think the important thing in terms of the amount of funding
894 -- and I do not have visibility into the current budgets of NTIA
895 and I wouldn't want to speak for, you know, precise dollar figures
896 -- but the way to think about it is that all of the money that

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897 we are putting into NTIA to drive broadband really needs to be
898 thought of as seed capital.

899 By having better information, we are going to more fully
900 leverage the amount of money that comes from whatever variety of
901 sources there are.

902 The economic growth and productivity gains that come from
903 broadband being deployed in communities that don't otherwise have
904 access to it, that has to be kept in mind and focused as the
905 objective for budgeting.

906 So while I don't have the great sense of what the precise
907 numbers are, I think the exercise that needs to be undertaken is
908 making sure that the money that we spend we can look at and find
909 a direct linkage to either -- it's going to more than be offset
910 by savings in the efficient allocation of other resources or it's
911 going to generate economic growth far in excess of the money that
912 we devote to the -- to the project.

913 Mr. Lance. Thank you. Mr. Gallagher.

914 Mr. Gallagher. I would focus on three areas, and the
915 overarching focus is where do we need NTIA to take us over the
916 next 10 years, if that's the relevant time frame for the committee,
917 and then does it have the resources to accomplish those key
918 focuses.

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919 The three that I would point to, one is international, two
920 is OSM, or the Office of Spectrum Management, and third is a
921 coordinator role across the federal government.

922 And the roles have changed. Now, many of these functions
923 remain the same. They have the same office names as when I was
924 there, as when John was there, but their challenges are quite
925 different.

926 Everything that happens now is global. Everything that our
927 industry is engaged in is worldwide in nature.

928 That's the thinking process, and when we were at the
929 Department of Commerce, one of the key talking points and things
930 that we'd repeat, 95 percent of the world's customers live outside
931 the United States.

932 So NTIA should be focused and be resourced to be very
933 effective in that environment. One thing I would add to this is
934 it's been brought to my attention that a level of the position
935 within the Department of Commerce oftentimes can be problematic
936 in dealing with foreign governments -- that if there was a higher
937 level to the position like under secretary as opposed to assistant
938 secretary, that would create greater impact for Secretary Redl
939 as he goes about his duties.

940 Second is OSM. I believe the Office of Spectrum Management

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941 is using the very same equipment that they used when I was there
942 10 years ago.

943 The return we've gotten from spectrum policy -- from sound
944 spectrum policy is enormous. More investment and then making
945 sure they have the resources to be even better at their job is
946 money well spent.

947 And then the final point is on this coordination role. The
948 more we ask NTIA to do in that regard you need to make sure that
949 there's enough resources -- primarily, people -- to make sure that
950 that happens, and again, I look to Office of Management and Budget
951 and this committee to set where those levels are.

952 Mr. Lance. Thank you very much to the distinguished panel
953 and, Chairman, I yield back 46 seconds.

954 Mrs. Blackburn. The gentleman yields back. Mr. Loeb sack,
955 you're recognized.

956 Mr. Loeb sack. Thank you, Madam Chair. I really
957 appreciate, obviously, the testimony today. You know, I am an
958 Iowan. I've got 24 counties -- a lot of rural areas. I don't
959 know what the total square miles is. It's something like 12,000
960 or so. It's pretty big -- a pretty big area -- and I get around
961 every weekend, and I know for a fact that our coverage in Iowa
962 isn't anything like what the FCC says it is officially.

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963 So I've been very interested in making sure that we have
964 accurate data when it comes to where broadband is deployed around
965 the country.

966 And there is bipartisan and bicameral agreement that the maps
967 the FCC is relying on now are flawed and quite inaccurate, and
968 I did introduce the bill, the Rural Wireless Act, with my good
969 friend from Pennsylvania, Ryan Costello, to improve the
970 reliability and the validity of the data needed to create the maps
971 and I am really happy it was passed -- included in the RAY BAUM'S
972 Act that the president signed into law earlier this year.

973 So I am really hoping that better maps are on the horizon.
974 A lot of folks in Iowa, all across the country in rural areas,
975 are hoping that better maps are on the horizon.

976 Hope isn't enough, I think. I am glad the discussion draft
977 reaffirms the NTIA's role in producing a national broadband map
978 that's accurate.

979 However, we may need to work together as the bill progresses
980 to ensure that we are doing all that we can to ensure that the
981 maps are as reliable as possible.

982 And, Mr. Gallagher, just a couple of quick questions for you
983 today. I do appreciate your comments and your testimony about
984 the need for more granular data, particularly in rural areas where

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985 a census block isn't necessarily the right geographic measurement
986 to reflect the realities of broadband availability.

987 So, Mr. Gallagher, I would just like to ask you first what
988 obstacles might NTIA face in collecting such granular data?

989 Mr. Gallagher. Well, the first obstacle is it may not exist
990 by doing it, like, household to household and so looking for the
991 sourcing on the data is really important.

992 One area that I would look to for all rural areas, not just
993 in Iowa but around the country, is you do have state Public Utility
994 Commissions that are in charge of wired communications and
995 increasingly have been involved in deployment of public safety
996 networks and other areas where their maps may be supplemental and
997 offer more granular data because it is their role to fundamentally
998 be local.

999 Mr. Loeb sack. Do you have any other ideas -- that was my
1000 second question, actually -- ideas about how to produce better
1001 data?

1002 Mr. Gallagher. I think that there are increasingly
1003 applications and technologies that are developed that do
1004 miraculous things for very low cost and those -- a survey of those
1005 mapping technologies, a survey of elements that follow the
1006 development of broadbands so, like, derivative types of

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1007 activities, would be able to develop the contours of where
1008 broadband exists if you know what people are doing.

1009 Like, for example, if they're playing Pokemon Go they must
1010 have access to the internet because their phones are connected
1011 -- those types of things might be where the data could be more
1012 practically extracted at a lower cost.

1013 Mr. Loeb sack. Okay. That's great.

1014 Well, that's pretty much what I have as far as questions and
1015 comments. This is something I've been beating sort of like a dead
1016 horse for quite a while.

1017 The chair knows that and -- but we do have good bipartisan
1018 support for this and I want to make sure that the FCC does the
1019 right thing so that we know where the heck we have coverage and
1020 where we don't.

1021 And I don't want to create any false illusions out there and
1022 or false expectations, if you will, on the part of folks in Iowa
1023 and all around rural America.

1024 When somebody says, oh, there's 96 percent coverage, we know
1025 there's not, and so we have to make sure that we have some truth
1026 in advertising when it comes to some -- finding the ways to measure
1027 this and get the accurate data really, really quickly.

1028 So thank you very much. I yield back my time.

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1029 Mrs. Blackburn. The gentleman yields back, and I just got
1030 a notice that votes will come sometime between 3:10 and 3:25 so
1031 we will try to complete our hearing before then.

1032 Mr. Johnson, you're recognized for five minutes.

1033 Mr. Johnson. Thank you, Madam Chair, and thank you for
1034 holding such an important hearing.

1035 NTIA has not been reauthorized since 1992 and it's essential
1036 that it has the funding and tools it needs to accomplish its
1037 objectives. I am particularly pleased to see the components
1038 relating to the broadband mapping and deployment issue.

1039 My legislation, the Mapping Now Act, which was included in
1040 the omnibus, reasserts NTIA's authority on broadband mapping. It
1041 is essential that we have an accurate map showing areas that are
1042 unserved and underserved so that we know where available resources
1043 should be focused.

1044 This discussion draft takes NTIA -- tasks NTIA with
1045 facilitating more accurate granular maps of broadband coverage
1046 with input from the FCC and other federal resources in addition
1047 to states and public-private partnerships.

1048 NTIA is in a good position to compile data from multiple
1049 sources, not just the FCC's Form 477 data, that would help create
1050 a more accurate and complete picture of broadband coverage.

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1051 I am hopeful that this legislation would provide NTIA with
1052 necessary funds and authority to work with other agencies and
1053 implement creative solutions for broadband mapping and to break
1054 down the barriers to broadband deployment.

1055 So to my questions -- when NTIA was first charged with
1056 creating the national broadband map under the 2009 American
1057 Recovery and Reinvestment Act, the data on the map was not always
1058 correct.

1059 In many cases, that is because it was reported on a state
1060 by state basis and each state had a different way in which it
1061 collected the data.

1062 This often led to the data being unreliable. For example,
1063 at one point it showed that one state in the Northeast had full
1064 satellite coverage but the next state that shared almost the same
1065 latitude and longitude had no satellite coverage.

1066 Now, I don't think it's the case that Vermont and New
1067 Hampshire can be so completely different in terms of their ability
1068 to be covered by satellite.

1069 So my question is this, and we'll just go down the line
1070 starting with you, Mr. Gallagher. How can NTIA ensure that the
1071 mistakes from the past are not repeated with any new mapping
1072 efforts?

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1073 Mr. Gallagher. The first place to start is to ask the
1074 question, put out an NOI saying, all right, this was done in the
1075 past -- what are the mistakes -- develop an inventory of those
1076 and an understanding, and then go through and systematically can
1077 be done and, of course, how much it costs in order to be able to
1078 close those gaps.

1079 That's the most important thing is just to ask the question
1080 and understand where you came up short, be very honest about it,
1081 and then just get back in there and do it again.

1082 Also, in the span of time since the map was first developed
1083 there may have been additional technologies that have been --
1084 become available or applications or services that could be done
1085 -- where this could be done very cheaply.

1086 Just one example is we developed a map of our own industry
1087 in the U.S. We've had this need -- it's called
1088 areweinyourstate.org -- and we found that there were over 3,000
1089 companies in our industry.

1090 Spread them out, and we organized them by congressional
1091 district. Now, this was done with manual labor and a great
1092 outside -- a great intern on the inside and a great partner in
1093 an outside vendor and done at very reasonable cost.

1094 What's being done here is much more complex, but it just shows

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1095 that the push of service quality means there could be ways to close
1096 those gaps.

1097 Mr. Johnson. Mr. Kneuer.

1098 Mr. Kneuer. Yes. I also think there are -- different
1099 institutions have different incentives to gather this information
1100 for their own purposes, whether they are commercial purposes,
1101 different government agencies have different access to
1102 information, whether it is the -- not just the existence of service
1103 but are there network elements under the control of the government
1104 that might be useful in providing additional services, whether
1105 it is fiber links from the Energy Department or towers controlled
1106 by public safety or natural resource agencies.

1107 So, like, with a lot of what we've been talking about this
1108 afternoon, it's NTIA's ability to survey all of those different
1109 sources of information, whether they are in disparate government
1110 entities, government agencies, whether they are held by the
1111 carriers, whether they are held by application providers who, for
1112 their own commercial interests, have a real monetary incentive
1113 to figure out where the coverage is and where the gaps are, to
1114 gather all of that and synthesize that in very much the same way.

1115 It's going to be very much, and I think it is a perfect
1116 complement to the Office of Internet Growth and Connectivity. It

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1117 is getting access to each of these different constituent pieces
1118 -- sources of funding, sources of information -- and synthesizing
1119 them together so that you don't have these, you know -- there
1120 should be obvious failures if, you know, a satellite sees the
1121 Northeast of the coast -- of the United States the same, right.
1122 So those sorts of things.

1123 By having, collating, overlooking different sources of
1124 information you can correct those areas.

1125 Mr. Johnson. Thank you. Ms. Hovis, sorry I didn't get to
1126 you. But Madam Chair, I will yield back.

1127 Mrs. Blackburn. The gentleman yields back. Ms. Eshoo,
1128 you're recognized for five minutes.

1129 Ms. Eshoo. Thank you, Madam Chairwoman. I noted that when
1130 you made your opening statement you spoke about this being a bill
1131 for rural Americans and I think that we all hope that that will
1132 really be the result.

1133 But while this bill provides funding, I think it's important
1134 to point out that it doesn't direct the agency enough on either
1135 the authority or the direction on how to use the funding to address
1136 the needs of Americans in the digital age.

1137 So we've got our work cut out for us here. I want to thank
1138 the three witnesses for being here today. I want to thank you

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1139 for your public service.

1140 This is my 24th year on this subcommittee. It's kind of
1141 extraordinary for me to use that number. It's hard to believe
1142 24 years.

1143 But I think this is the first time in terms of a
1144 reauthorization act that we don't have the agency represented
1145 here. I think it's wonderful that you're giving your opinion
1146 about what you think the agency should do. But I find this to
1147 be highly unusual.

1148 Now, I know David Redl was here in March. But I still think,
1149 Madam Chairwoman, that it's very important and it's still really
1150 appropriate to be discussing the draft of a -- of a reauthorization
1151 with someone -- with a key official -- I think David Redl -- you
1152 know, an NTIA official on this.

1153 So let me get to my questions. But I wanted to point that
1154 out because it's the first time that I've ever experienced this.
1155 So it is what it is.

1156 But I think that we need to make sure that NTIA comes and
1157 when we have a review with the key person from there.

1158 So to Mr. Gallagher and Mr. Kneuer, do you know what steps
1159 the assistant secretary is taking relative to overseeing FirstNet
1160 and its contract with AT&T?

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1161 Mr. Gallagher. I do not.

1162 Ms. Eshoo. Do you, Mr. Kneuer?

1163 Mr. Kneuer. Not with specificity.

1164 Ms. Eshoo. Okay.

1165 Mr. Kneuer. Just in terms of how the role of NTIA overseeing
1166 FirstNet, which --

1167 Ms. Eshoo. Well, we know that they oversee it. I want to
1168 know -- I mean, because I think you're here in some way, shape,
1169 or form to speak for NTIA.

1170 Do you know what the current NTIA plans are to address the
1171 gaps between the maps? It says show coverage and the actual
1172 coverage of high-speed broadband.

1173 Mr. Kneuer. I do not.

1174 Ms. Eshoo. Does anyone know?

1175 Mr. Gallagher. No.

1176 Ms. Eshoo. No one knows. Okay.

1177 If this authorization were to become the enacted budget for
1178 NTIA, do you know what portion of the new resources would be aimed
1179 at improving NTIA's oversight of FirstNet?

1180 Mr. Gallagher. I do not.

1181 Ms. Eshoo. Anyone know?

1182 Mr. Kneuer. No.

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1183 Ms. Eshoo. Maybe to Ms. Hovis -- do you know what the
1184 specific challenges are that NTIA faces in mapping broadband
1185 coverage accurately today and are they technological?

1186 Are they methodological, and what do you think that they
1187 should be doing to get an accurate study?

1188 Ms. Hovis. My primary concern about the broadband mapping
1189 is that some of the underlying data is at such a low level of
1190 granularity that we don't really have anything like an accurate
1191 picture. The big part --

1192 Ms. Eshoo. Well, I know that, but I am asking what -- do
1193 you think it's beyond technological or methodological? How are
1194 we going to get accurate information?

1195 If we don't have a roadmap, then we don't know where we are
1196 going and what we are doing.

1197 Ms. Hovis. The data --

1198 Ms. Eshoo. That's what a roadmap is. So -- or the map, in
1199 this situation -- so what do you -- what do you think the main
1200 issue is that we should be pursuing?

1201 Ms. Hovis. From my perspective, the main issue is that the
1202 data collected by the FCC through the 477 is not giving us
1203 sufficient information. We are getting --

1204 Ms. Eshoo. And what -- and the source of that lack of being

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1205 able to get it is what? What do you recommend?

1206 Ms. Hovis. The information is self-reported by the
1207 providers and it is frequently self-reported at the level of if
1208 a single location within a census block is served, the entire
1209 census block can be shown as served, which I sometimes think of
1210 as allowing my high school daughter to --

1211 Ms. Eshoo. Well, I remember years ago, in the Bush
1212 administration, if it was in a zip code then everyone was covered,
1213 which -- you know, I mean, this is like Pete and repeat.

1214 So, well, I'm happy that you all came. Thank you again for
1215 your service and, Madam Chairwoman, I think that we need the
1216 assistant secretary to come in and speak about the
1217 reauthorization. I think that's very important.

1218 With that, I yield back.

1219 Mrs. Blackburn. The gentlelady yields back.

1220 Mrs. Brooks, you're recognized for five minutes.

1221 Mrs. Brooks. Thank you, Madam Chairwoman. Thank you so
1222 much to all of our witnesses for being here today.

1223 Something that we heard about at a earlier NTIA hearing had
1224 to do with the fact that we are fairly behind the race for 5G of
1225 South Korea, Japan, and other countries.

1226 I am curious, Mr. Kneuer, in your opinion, how are we doing

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1227 in the race -- in the 5G race?

1228 Mr. Kneuer. I think 5G is in its infancy where it's sort
1229 of the beginning of the beginning, not even the end of the
1230 beginning. But I think 5G is sort of the cross-cutting issue that
1231 answers much of what we've been talking about here.

1232 For the first time with 5G, wireless applications will give
1233 the same kinds of speeds and comparable speeds as landline
1234 applications at a much, much lower cost of deployment and much
1235 more readily suited to serve hard-to-reach areas.

1236 So the issues for NTIA around 5G are recognizing that but
1237 very much it's spectrum to spectrum to spectrum. We need low-band
1238 spectrum. We need mid-band spectrum. We need high-band
1239 spectrum.

1240 With all of that, I think the inherent incentives in the U.S.
1241 economy and in the U.S. telecommunications marketplace give us
1242 a key advantage over some of the countries that some people may
1243 look at and say that they're quote, unquote, "leading."

1244 If you have got a single carrier or a couple of dominant
1245 carriers, the U.S. market has been one that has been a massive
1246 incentive for as much investment in as many carriers as possible.

1247 I think if we repeat those examples and provide the spectrum
1248 that allows each of our main market participants to continue to

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1249 compete, we will have the most robust and the most widespread 5G
1250 networks in the world.

1251 Mrs. Brooks. Does our current discussion draft that we are
1252 discussing address the issues that you're referring to? I am
1253 curious that -- of each of the panel members.

1254 Mr. Kneuer. I think the establishment of the Internet
1255 Connectivity Office will help in identifying where those issues
1256 are.

1257 The issues around spectrum in general, which may not be
1258 specifically called out in this draft but are explicit in the
1259 reauthorization of the agency and the things that NTIA does, I
1260 think so.

1261 Mrs. Brooks. Does anyone else have a different opinion or
1262 further opinion on 5G?

1263 Mr. Gallagher.

1264 Mr. Gallagher. What I would say is I would echo John's
1265 thoughts -- that we are at the very beginning of this -- it's way
1266 too early to declare a winner -- and that in the U.S. we have all
1267 of the elements to be fantastically successful in the deployment
1268 of 5G.

1269 When you look at the demand for the services, like, what's
1270 the extra speed going to mean, we'll be able to translate that

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1271 into economic value a lot faster than other economies around the
1272 world and that will be the engine that pulls this in a very
1273 commercial way to worldwide success.

1274 Mrs. Brooks. Thank you. Ms. Hovis.

1275 Ms. Hovis. Congresswoman, I think this is incredibly
1276 important, and I actually just returned a matter of days ago from
1277 South Korea where I spent a good amount of time looking at
1278 infrastructure both in the cities and, even more importantly, in
1279 rural areas.

1280 And I don't think we have -- we are right at the beginning.
1281 We have not lost anything, and we are well positioned to win the
1282 race for 5G.

1283 The one thing that I noted in South Korea that I thought was
1284 so important is that their rural areas will get better wireless
1285 and better 5G than our rural areas will because there's existing
1286 infrastructure there, and that speaks to the reauthorization bill
1287 and the need for more rural infrastructure and fiber for our
1288 communities and that will -- that is what will enable 5G because
1289 there will be no wireless without wires to support it.

1290 Mrs. Brooks. Okay. Thank you. Shifting gears a moment to
1291 -- we learned this in dealing with a bill to reauthorize the Poison
1292 Control Center in our work on opioids out of this committee.

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1293 But I learned about problems relative to our 911 services
1294 and it caused me to be concerned as to whether or not other
1295 emergency lines like suicide hotlines, veteran crisis lines,
1296 apparently, if someone were to call they aren't necessarily --
1297 the centers aren't locating the calls.

1298 They're taking what area code is showing up on the phone
1299 rather than geolocating the actual phone.

1300 I think most people don't assume that's what's happening.
1301 So while I have a 317 area code here and I were to make a call,
1302 I would be routed improperly, or it could be.

1303 Are there -- are we going to be fixing issues like this and
1304 is NTIA -- what will their role be? If any of you have an opinion
1305 on that.

1306 Mr. Gallagher. What I would offer is that so much of what
1307 you just described those challenges -- they lie in the province
1308 of the states and how they deploy 911, and then the FCC and its
1309 role in overseeing how that works.

1310 And so it's not in the sweet spot of what NTIA does except
1311 for ITS, which is the lab that's run by NTIA. They do research
1312 on these types of things and how to improve accuracy and
1313 performance.

1314 Mrs. Brooks. Okay. Thank you. I yield back.

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1315 Mrs. Blackburn. The gentlelady yields back. Mr. McNerney,
1316 you're recognized for five minutes.

1317 Mr. McNerney. I thank the chair. I thank the witnesses.

1318 I apologize for missing your testimony but you did have
1319 written statements, which we reviewed beforehand.

1320 I am concerned about the security risk posed by the vast
1321 number of devices coming to the market on IOT, and I have
1322 introduced legislation to improve the security.

1323 Mr. Gallagher, NTIA's recent botnets report outlines a
1324 series of goals that are intended to give stakeholders guidance
1325 on what steps they should be taking to secure their systems
1326 networks.

1327 What are specific resources the NTIA needs to ensure that
1328 meaningful action is taken by its stakeholders?

1329 Mr. Gallagher. I think, unfortunately, the resources are
1330 going to be more necessary by those that need to implement the
1331 recommendations than those that formulated them themselves.

1332 The federal government has had many challenges when it comes
1333 to implementing its own solutions on a technical basis. It's
1334 really going to -- this is going to require action in the
1335 marketplace and by manufacturers and then, ultimately, by
1336 consumers to make sure that their behavior reinforces the values

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1337 in those reports.

1338 Mr. McNerney. Thank you. Mr. Kneuer, the NTIA has held a
1339 series of multi stakeholder meetings on IOT security
1340 upgradeability and patching. The most recent one was held last
1341 November.

1342 Are you aware of what progress the NTIA has made with this
1343 multi stakeholder process since November?

1344 Mr. Kneuer. I am not familiar with the details of that
1345 particular multi stakeholder process. But it is indicative of
1346 the contribution that NTIA can make as sort of standing as an
1347 intersection between having lots of communication with the market
1348 participants and the commercial entities and, at the same time,
1349 having visibility through their contacts with the national
1350 security intel Homeland Security agencies where they can serve
1351 as a conduit of sort of identifying threats, passing information
1352 back and forth, and serving that sort of a function.

1353 Mr. McNerney. Okay. Mr. Gallagher, you're shaking your
1354 head yes?

1355 Mr. Gallagher. Well, I am just agreeing with John.

1356 Mr. McNerney. Okay. Well, as an engineer, I think it's
1357 important that the agencies principally responsible for advising
1358 the president on telecommunications and information policy be

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1359 equipped with the technical expertise needed to develop policy.

1360 Mr. Gallagher, how many engineers does the NTIA currently
1361 employ?

1362 Mr. Gallagher. I don't know the answer to that.

1363 Mr. McNerney. Well, earlier this month before the Senate
1364 Committee on Commerce, Administrator Redl said that, "I believe
1365 the greatest challenge for advancing IOT will be cybersecurity."

1366 How many engineers does NTIA have on staff that would
1367 specifically work on cybersecurity?

1368 Mr. Gallagher. Again, that's specific information. I am
1369 sure it's available from other sources but I don't have it.

1370 Mr. McNerney. Mr. Kneuer, in reauthorizing the NTIA, it's
1371 critical that we understand what resources the agency currently
1372 allocates toward technical expertise and I am hoping that you
1373 might be able to provide me with more specific answers for the
1374 questions that I just asked Mr. Gallagher.

1375 How many engineers does -- specifically focuses on IOT
1376 security?

1377 Mr. Kneuer. So I don't have visibility into the number of
1378 engineers assigned right now. When Mike and I were there, there
1379 was something like 180 engineers in the agency.

1380 But I think what is important is that NTIA's access to

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1381 technical expertise is not limited to its in-staff resources. So
1382 there are vast resources that NIST, which is, you know, the
1383 flagship government technical agency -- there are resources
1384 within the NSA. There are resources within the Defense
1385 Department that they're able to access, as I've said, when they
1386 -- and then share that information with the commercial sector and
1387 also help identify vulnerabilities and events that are taking
1388 place in the commercial environment, and communicating that into
1389 the broader government wide effort, and I think it's going to have
1390 to be a government wide effort. This won't be an NTIA only
1391 solution.

1392 Mr. McNerney. Well, okay. I will grant you that.

1393 Unfortunately, NTIA doesn't have anyone here today. So we
1394 can't really get enough visibility to determine if they have the
1395 resources that they need.

1396 Ms. Hovis, could you discuss the importance of the
1397 public-private partnerships in rural and underserved broadband
1398 deployment? I have a lot of that in my district.

1399 Ms. Hovis. Well, at its core, a public-private partnership
1400 helps to change the economics of broadband in an area where the
1401 economics simply don't work.

1402 Ideally, there would be private sector investment everywhere

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1403 and there would be rationale and economic viability for private
1404 sector investment.

1405 But that's, unfortunately, not how infrastructure works of
1406 any sort, particularly in rural areas, and there are simply going
1407 to need to be places where the public sector has a significant
1408 role.

1409 The places where that's been most successful there has been
1410 collaboration between public and private, and frequently, efforts
1411 on the public sector side at the federal, state, and local levels
1412 to collaborate with the private sector to solve these problems
1413 and to improve the economics of the build out.

1414 Mr. McNerney. Thank you. I guess I better yield back.

1415 Mrs. Blackburn. The gentleman yields back. Mr. Costello,
1416 you're recognized for five minutes.

1417 [Off-microphone comments.]

1418 Mrs. Blackburn. Mr. Costello, your microphone, please.

1419 [Off-microphone comments.]

1420 Mr. Kneuer. Sure, and with regards to the specific case that
1421 was an enforcement action, not surprised that NTIA wasn't
1422 specifically involved in that part of the negotiation.

1423 But I think NTIA does sort of sit in the middle of the
1424 intersection of national security and our communications

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1425 networks.

1426 It would be a partner with other agencies within the
1427 Department of Commerce, the Bureau of Industry and Security, which
1428 has a specific mission to look after cross-border trade and
1429 technology that involves our national security -- the
1430 International Trade Administration, which is responsible for our
1431 international trade commitments, but most importantly and, I
1432 think, most relevant, as the agency that has direct contact with
1433 the carrier set that is relying on this -- these network elements
1434 that may be subject to vulnerabilities.

1435 So it is -- its policy coordinating function through its
1436 natural interface with the defense, intelligence, and homeland
1437 security agencies with the national security inside the White
1438 House and with its counterparts inside the Commerce Department.
1439 So --

1440 Mr. Costello. So you, likewise, agree that having NTIA lead
1441 an interagency effort to strategically share supply chain threat
1442 information with the private sector should be one of its core
1443 competencies?

1444 Mr. Kneuer. Yes.

1445 Mr. Costello. Mr. Gallagher, in your testimony you touched
1446 upon the benefits of increased unlicensed spectrum use and

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1447 successful spectrum sharing in the 5 gigahertz band, starting in
1448 2003.

1449 Can you expand on that example and talk about some of the
1450 future benefits of unlicensed spectrum use in the context of 5G
1451 deployment?

1452 Also, in your opinion, what, if anything, should Congress
1453 do to leverage NTIA's expertise and role in unlicensed spectrum
1454 use?

1455 Mr. Gallagher. So unlicensed spectrum has been one of the
1456 gold mines of our tech economy over the last 15 years. If you
1457 look at wi-fi and how pervasively we use it in our homes and our
1458 businesses, it's been just a powerhouse of very, very cheap, very
1459 efficient transmission of data.

1460 Now, ultimately, all of that ties back to a fiber
1461 architecture and gets transmitted over more robust networks. But
1462 the promise of unlicensed has been proven to be very, very true
1463 and very real.

1464 So finding more of that it makes great sense because if you
1465 have encountered the interference in your home from multiple
1466 devices, as we all carry more and more of them, we access more
1467 -- richer and richer services, it does put a load on those and
1468 there is a potential for interference.

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1469 So more of that type of spectrum will continue to feed the
1470 growth in that area, lowers the burden on our license services.

1471 I think the aspiration of unlicensed that we have yet to
1472 achieve is I would call carrier class unlicensed spectrum use
1473 where you would have, basically, the quality of a licensed service
1474 done in an unlicensed way.

1475 That remains something that's out of reach at the moment.
1476 It hasn't really been delivered yet in the marketplace.

1477 In the times when John and I were serving it looked like that
1478 was going to happen, and it hasn't really come to fruition. But
1479 that's an area of further explanation.

1480 Mrs. Blackburn. The gentleman yields back.

1481 Mr. Butterfield, you're recognized for five minutes.

1482 Mr. Butterfield. Thank you very much, Madam Chairman, and
1483 thank you to the three witnesses for your testimony today.

1484 We have votes around 3:15 and so I am going go cut mine short
1485 and not go through the full five minutes, Madam Chairman. But
1486 let me just say -- ask the three witnesses, I am from a rural low
1487 income community in eastern North Carolina and I think we can all
1488 agree that we have a digital divide in this country.

1489 It's no question that affluent developed communities, you
1490 know, have broadband. Low income rural communities, many of

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1491 them, do not.

1492 Can you just tell me, each of you, in your own words in plain
1493 English why we have this digital divide and what we can do to bridge
1494 this divide and bring it to an end in my lifetime?

1495 Ms. Hovis. Congressman, I think you articulated the problem
1496 exactly right. The challenges that private investment goes --
1497 it follows the money and where the opportunity is and we need to
1498 build bridges in terms of investment and funding at the state,
1499 local, and federal level to support private investment and to add
1500 to it and to make it economically viable and interesting for the
1501 private sector to support markets where they might not otherwise
1502 go and to make it possible for other entities to provide services
1503 in those markets where the private sector may choose not to go
1504 and that, in my opinion, should include counties and
1505 municipalities and nonprofit and public-private partnerships and
1506 collaborations because we need to use every tool in the toolbox
1507 if we are going to bridge those gaps.

1508 Mr. Kneuer. I will just keep banging on the 5G drum for a
1509 minute. There is the reality of the economic return, based on
1510 the cost of the deployment of the networks. In the very high cost
1511 for hard-to-serve areas, the economic incentive breaks down on
1512 delivering service to those areas.

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1513 As 5G becomes a reality, that economic equation will change
1514 dramatically and I think we have a promise of wireless networks
1515 closing dramatically the gaps that would need to be filled by the
1516 kinds of public and private partnerships and by government
1517 support.

1518 Mr. Gallagher. And I would just add my voice to the solution
1519 will be wireless. It will be a lot lower cost per person or per
1520 unit of data than what has been deployed in the past.

1521 The technology has come to this stage where now we carry
1522 devices in our pockets that five years ago would have cost tens
1523 of thousands of dollars.

1524 Now, there are new versions coming out every year. Flat
1525 screen TVs used to be ridiculously expensive. They're now
1526 borderline disposable, and these types of end of the network uses
1527 for broadband -- they've brought down the cost in the home for
1528 those that need the service in rural areas as well as in the
1529 networks themselves.

1530 So as we continue to get better and better at better
1531 technologies, richer technologies, lower cost devices on the
1532 other end, it'll help close that gap.

1533 Mr. Butterfield. All three of you agree 5G is the future?

1534 Ms. Hovis. If I may add, Congressman.

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1535 Mr. Butterfield. Yes.

1536 Ms. Hovis. I very much agree with my colleagues here. We
1537 are all extremely optimistic about the wireless future. But
1538 there is no rural wireless without a wire to support that wireless
1539 service and that means we can't just say, well, we don't have to
1540 worry about wired infrastructure in rural areas because wireless
1541 will take care of it.

1542 That wireless component is only the very end of the network
1543 and if we are going to give folks in rural communities the kinds
1544 of services that we all expect every day in our urban communities,
1545 we are going to have to make sure that wire is there to support
1546 next-generation wireless deployment, and we've got a long way to
1547 go on that.

1548 Mr. Butterfield. Thank you.

1549 Mr. Gallagher. I would just amend by saying wireless back
1550 haul is in service now and is a step towards helping close that
1551 gap that exists on the wired space.

1552 Mr. Butterfield. Okay. All right. Thank you, Madam
1553 Chair.

1554 Mrs. Blackburn. The gentleman yields back. Mr. Guthrie,
1555 you're recognized.

1556 Mr. Guthrie. Thank you. Thank you very much, and I will

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1557 be brief too because I know we have at least another question over
1558 here.

1559 So I want to ask -- so, many counties regionalised their
1560 dispatch centers, and not only does it allow for pooled technical
1561 resources -- 911 services is what I am talking about -- it also
1562 provides for the redundancies in the system so that if one county
1563 dispatch center shuts down, the other can cover for them because
1564 they share the same equipment.

1565 As we work for further deployment of NG 911, how can NTIA
1566 work to support the ongoing and future initiatives of these
1567 regional dispatch centers.

1568 I will just open it to anyone. Does any --

1569 Mr. Gallagher. The first thing I would say is convening,
1570 and that's a very strong power of NTIA historically is bring people
1571 together to share best practices so that as the public safety law
1572 enforcement network responsible leaders, when they get together
1573 they're able to see that there's a cheaper and better way of doing
1574 something, they learn that from one another.

1575 The other, again I would point to is ITS as NTIA does do
1576 research on the telecommunications services themselves and
1577 potentially could assist in formulating lower cost ways of -- or
1578 more robust ways of providing the same service.

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1579 Mr. Guthrie. Okay. And I know there's been discussion in
1580 elevating the NTIA administrator to an under secretary, and
1581 somebody else may ask more about that.

1582 So but I want to focus on if that -- if the elevation of the
1583 title adds to what we may call gravitas, internationally, what
1584 would it do interagency for the deployment of federal spectrum
1585 and auctioning federal spectrum?

1586 Mr. Kneuer. I think it's directionally helpful. You know,
1587 as a practical matter, NTIA functions inside the department as
1588 an under secretary already. There's no layer in between NTIA and
1589 the secretary.

1590 Typically, an assistant secretary might report to an
1591 undersecretary, who then reports to the secretary of commerce.
1592 NTIA actually has one step elevated stature in that it also reports
1593 dotted line directly to the president.

1594 So in terms of the governance, it's functioning as an under
1595 secretary already. But in terms of protocol and interagency
1596 negotiations, you know, if you're synced up with an assistant
1597 secretary at the Defense Department who then is talking to an under
1598 secretary before they get to the secretary, it's just one more
1599 layer in between.

1600 So I think there is, you know -- it would be directionally

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1601 helpful inside managing the interagency process and it would more
1602 accurately reflect where the agency sits within the department
1603 by making an under secretary.

1604 Mr. Guthrie. So thanks.

1605 And then really quick also, mapping. I know we've talked
1606 about mapping and it's been addressed. But I would like to share
1607 my support for more granular mapping that's been talked about and
1608 better data and better verification as well.

1609 Do you have suggestions for improving verification
1610 strategies? I know you have talked a little bit earlier. I know
1611 I was in and out with another meeting, but I just -- Ms. Hovis,
1612 if you --

1613 Ms. Hovis. I don't know how this happens, but I think that
1614 -- you know, wherever I travel I speak to stakeholders and
1615 officials in rural communities who say to me, why is the map
1616 showing us as served when we know we are not served, and there
1617 needs to be some kind of formal mechanism for feedback and
1618 opportunity to challenge the map where it's not accurate and
1619 resources for the map then to be corrected because I understand
1620 it's expensive and difficult for providers to provide certain
1621 kinds of data.

1622 But the rural communities, the rural businesses that are

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1623 suffering from the fact that the map has not got accurate date
1624 and therefore they're not eligible for certain kinds of programs
1625 or certain kinds of support or -- at the state and local level
1626 -- I am sorry, at the state and federal level. Very, very
1627 frustrating for them, and it is the federal government that is
1628 putting this data together.

1629 Mr. Guthrie. Well, that's important, too, because my area
1630 it has rural areas you just look at and say you know there's issues
1631 that need to be addressed. My home town is Bowling Green, which
1632 is kind of tied in with our chairwoman's community -- boom town
1633 of Nashville. We are a boom town as well.

1634 And you hear from people who are developing and trying to
1635 accommodate the growth and stuff moving forward is that a lot of
1636 people won't want to move into certain neighborhoods or they can't
1637 develop areas because there's no profit. If you're going to build
1638 a nice home you're moving in you don't want -- you want access
1639 to broadband.

1640 So that's limiting what can happen. But if you look at a
1641 map, you would say that Warren County, that has gone from 70,000
1642 to 125,000 in the last 20 years, would be served.

1643 But it depends on where you live, and so that's what's
1644 important. And I was going to not use all my time but I almost

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1645 did.

1646 I yield back.

1647 [Laughter.]

1648 Mrs. Blackburn. The gentleman yields back. Mr. Shimkus,
1649 you're recognized.

1650 Mr. Shimkus. Thank you, Madam Chairman. Great hearing.
1651 It's good to see you all again.

1652 I am going to start really following up on my colleague, Mr.
1653 Guthrie's question on the under secretary debate and is -- because
1654 you talked -- Mr. Kneuer, you talked internally.

1655 Let's talk externally. What about -- you know, we've been
1656 involved in the NATO parliamentary assembly. I do some stuff in
1657 the -- in the Baltic regions. Titles matter internationally.

1658 Do you see any help -- anyone want to comment on a title change
1659 just for the international aspects of what NTIA has to do?

1660 Mr. Kneuer. Yes. I think it's more relevant in the
1661 international context than in the interagency domestically. We
1662 can sort of manage that here.

1663 In my experience travelling, you know, they were very
1664 confused by the NTIA role and the title, you know -- are you the
1665 minister of communications, which in foreign countries could be,
1666 you know, the -- one of the leaders of the cabinet, right.

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1667 So some clarity with an under secretary helps them understand
1668 it. It gives commonality with, you know, our counterparts in the
1669 State Department who travel internationally. There's more of a
1670 clarity of what the role is.

1671 So I think, you know, the elevation of the title actually
1672 probably carries a little bit more currency in international
1673 negotiations than it does -- you know, you can manage it here.
1674 You just have to --

1675 Mr. Shimkus. Right. Mr. Gallagher, you seem to be shaking
1676 your head. Do you agree with that analysis?

1677 Mr. Gallagher. Yes. I think 90 percent of the benefit of
1678 this is coming in the international arena and it comes from respect
1679 from the foreign delegations.

1680 It's very important for us to keep in mind that they don't
1681 have the turnover we do. Our political system -- we move through
1682 political appointees. There, they tend to be there for very long
1683 periods of time.

1684 The title helps cut through that gap and experience.

1685 Mr. Shimkus. Great. Thank you. And I want to focus on a
1686 part of the discussion draft, which is WHOIS database, and I --
1687 many of you follow me. I was involved with the IANA on transition
1688 and ICANN debate, and the -- there was kind of a commitment during

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1689 that discussion that the WHOIS database would continue.

1690 Now, throw in the uncertainty with the European Union and
1691 the general data protection regulation.

1692 Can you talk to me about the importance of, you know, keeping
1693 the WHOIS database and this European concern and how we crunch
1694 through this?

1695 Mr. Gallagher.

1696 Mr. Gallagher. It's absolutely vital that the WHOIS
1697 database is taken very seriously and continues to have the
1698 emphasis that it has had for a very long period of time.

1699 In virtually every bilateral meeting that I had or any other
1700 international meeting, the Department of Justice, Department of
1701 Homeland Security, the intelligence community, the White House
1702 all the way through made sure it was always on our agenda at NTIA
1703 to underscore the importance of WHOIS.

1704 That is -- that's paramount that that continue, even with
1705 any conflict with the GDPR. It's -- the conflict is something
1706 that is misplaced if that's the way it's perceived.

1707 The mission of WHOIS to intellectual property holders, law
1708 enforcement, is paramount to whatever those concerns might be
1709 about individual privacy.

1710 Mr. Shimkus. Anyone else want to chime in on that?

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1711 Mr. Kneuer. I think there is -- there is no separation
1712 anywhere in the USG and, I even think, at ICANN with regards to
1713 the importance of WHOIS and the commitment to collect reliable
1714 publicly accessible WHOIS data.

1715 This conflict of laws with the GDPR, I think WHOIS is going
1716 to be sort of the pointy end of the spear on that. There are lots
1717 and lots of different places where the GDPR is running into
1718 conflicts of law.

1719 So I think there is -- this is going to be an exercise we
1720 are going to have to undertake. I think NTIA remains well suited
1721 to be the U.S. point in working with ICANN, protecting that, and
1722 if it turns out that there needs to be a U.S. legal solution to
1723 clarify and supersede the GDPR, that's something that they can
1724 consider as well.

1725 Mr. Shimkus. Thank you, and I want to submit for the record
1726 the Coalition for a Secure and Transparent Internet to the record.

1727 Mrs. Blackburn. Without objection.

1728 [The information follows:]

1729

1730 *****INSERT 6*****

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1731 Mr. Shimkus. And this just -- and I will just end on I sent
1732 a letter with -- along with Congressman Ruiz to GoDaddy
1733 highlighting and fleshing this out either.

1734 So it's very important and I appreciate your answers and look
1735 forward to having that part of the language.

1736 And I yield back.

1737 Mrs. Blackburn. The gentleman yields back.

1738 And Mr. Welch has no questions or comments. We are delighted
1739 that he's here. We should ask him where he was in 1992, the last
1740 time Congress did this.

1741 Well, seeing that there are no further members wishing to
1742 ask questions for the panel, I want to thank each of you for being
1743 here today and for helping us.

1744 As you can see, there is broad bipartisan agreement on moving
1745 forward with the rural broadband and with NTIA -- their
1746 participation, and so we thank you for your insight.

1747 Before we conclude, I ask unanimous consent to enter the
1748 following documents into the record: a letter from NTIA, a
1749 Politico article, "Wired to Fail," a letter to me from
1750 organizations fighting human trafficking, a letter from CCIA --
1751 that is offered by Mr. Lance -- a letter from CSTI, offered by
1752 Mr. Shimkus, ESA's court filing, offered by Mr. Doyle, the

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1753 Shimkus-Ruiz letter regarding WHOIS and the database.

1754 Without objection, so ordered.

1755 [The information follows:]

1756

1757 *****INSERT 7*****

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1758 Mrs. Blackburn. Pursuant to committee rules, all members are
1759 reminded that they have 10 business days in which to submit
1760 additional questions, and we would ask each of you -- our witnesses
1761 -- to respond within 10 business days.

1762 Seeing there is no further business to come before the
1763 committee, the subcommittee is adjourned.

1764 [Whereupon, at 3:23 p.m., the committee was adjourned.]

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