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4 OVERSIGHT OF FIRSTNET AND THE ADVANCEMENT OF PUBLIC SAFETY

5 WIRELESS COMMUNICATIONS

6 THURSDAY, NOVEMBER 21, 2013

7 House of Representatives,

8 Subcommittee on Communications and Technology

9 Committee on Energy & Commerce

10 Washington, D.C.

11 The Subcommittee met, pursuant to call, at 10:31 a.m.,
12 in Room 2123 of the Rayburn House Office Building, Hon. Greg
13 Walden [Chairman of the Subcommittee] presiding.

14 Members present: Representatives Walden, Latta,
15 Shimkus, Blackburn, Lance, Gardner, Long, Eshoo, Matsui,
16 Lujan, and Waxman (ex officio).

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17 Staff present: Ray Baum, Senior Policy Advisor/Director
18 of Coalitions; Andy Duberstein, Deputy Press Secretary;
19 Kelsey Guyselman, Counsel, Telecom; Grace Koh, Counsel,
20 Telecom; David Redl, Counsel, Telecom; Charlotte Savercool,
21 Legislative Coordinator; Tom Wilbur, Digital Media Advisor;
22 Gene Fullano, Detailee, Telecom; Shawn Chang, Chief Counsel
23 for Communications and Technology; Margaret McCarthy,
24 Professional Staff Member; Kara van Stralen, Policy Analyst;
25 and Patrick Donovan, FCC Detailee.

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|
26 Mr. {Walden.} I am going to call to order the
27 Subcommittee on Communications and Technology. I want to
28 thank our witnesses for being here today. Just at the
29 outset, I would tell you that they expect votes on the House
30 floor at about 10:50, or thereabouts, so I think we will get
31 through our opening statements. I doubt we get to your
32 presentations initially, but then we are going to come back
33 right after those votes and proceed. And so I will start.

34 Last March the subcommittee met to conduct our first
35 oversight hearing of the newly formed First Responder Network
36 Authority, or FirstNet. FirstNet's charge of building a
37 nationwide, interoperable, public safety broadband network
38 from Washington, D.C. under the statute was crafted by our
39 friends in the Senate.

40 As I noted then, the structure of FirstNet was not my
41 preferred approach to solving our nation's public safety
42 communications challenges. I favored construction from the
43 bottom up, not the top down, with certain minimum
44 interoperability requirements set by the Federal government,
45 and commercial providers running the network, in partnership

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46 with the states. I cautioned then that this approach is not
47 guaranteed by the legislation as passed, but that FirstNet
48 could choose to adopt such approach.

49 While there is significant work to be done to ensure the
50 states are partners, not customers, of FirstNet, it appears
51 that FirstNet has made progress in reaching out to state,
52 tribal, and local jurisdictions along these lines. This is a
53 significant undertaking, rivaling the network deployments of
54 our largest national wireless carriers. Today's hearing
55 reflects the subcommittee's commitment to continued and
56 thorough oversight of this important effort, and a dedication
57 to ensure that our nation's public safety users realize the
58 benefits, and know the costs, of the state of the art
59 communications tools that the law envisions.

60 Now, when we met last March, the FirstNet board had only
61 recently been assembled. Perhaps because of its infancy,
62 there was considerable uncertainty among critical
63 stakeholders with regard to how FirstNet was being
64 administered, and how the public safety broadband network
65 would be realized. Unfortunately, rather than seeing those
66 concerns wane as FirstNet has gained its footing, FirstNet

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67 finds itself embroiled in allegations from within that it
68 lacks transparency, and suffers from potential ethical
69 conflicts. As a result, FirstNet is currently under
70 investigation by the Inspector General of the Department of
71 Commerce. Suffice it to say, this is not necessarily a
72 confidence inspiring development. But, for all the efforts
73 by FirstNet, much work remains to gain the support of the
74 states and the tribes, the commercial wireless community,
75 and, most importantly, the first responders, who will rely
76 upon FirstNet in life or death situations.

77 Ultimately FirstNet needs the confidence and cooperation
78 of all these groups to realize the standards, economies of
79 scale, and potential that FirstNet holds. In order to do so,
80 FirstNet must be an informative and cooperative national
81 coordinator of the myriad moving parts that comprise the
82 public safety community, and do so in short order.

83 Unfortunately, this is precisely where FirstNet seems to be
84 struggling.

85 This challenge is best exemplified by the fact that no
86 one seems to be able to answer the simple question what is
87 FirstNet? Is FirstNet going to partner with our national

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88 wireless providers, or will it be just another commercial
89 provider in government clothing? Has FirstNet modeled a cost
90 for these options? Are states expected to give FirstNet
91 their existing assets as an up-front payment for
92 participation? What is FirstNet going to charge local first
93 responders for use of the network?

94 Now, these are all questions that we in Congress have
95 been asked as FirstNet struggles to find its way. And while
96 a few jurisdictions have managed to negotiate lease
97 agreements with FirstNet, the fundamental issues regarding
98 cost, coverage, and timing remain unexplained, as do the
99 processes contemplated for the exercise of a state's option
100 to participate in the network. Now, left unresolved, the
101 promise that we made to first responders to overcome once and
102 for all the lack of interoperable communications is
103 undermined, and the prospect of FirstNet's success
104 diminished. We cannot afford to have this effort fail to
105 produce a network, or worse, have the network deployed, and
106 then have no one show up to use it.

107 Today we are asking our witnesses what is working, what
108 is not working, and how can we help? How can we help? We

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109 will hear from the chairman of the FirstNet Board, who can
110 provide an update on progress in the deployment of the Public
111 Safety Broadband Network, address these fundamental issues,
112 and hopefully allay our concerns about the openness and
113 transparency of FirstNet's processes. We will also hear from
114 states, the chief of the FCC's Public Safety and Homeland
115 Security Bureau, NIST, whose good work with NTIA on the
116 Public Safety Communications research program is helping
117 answer some fundamental technology questions for FirstNet,
118 and a private sector representative who can provide their
119 perspectives on FirstNet's progress, insights into their
120 respective roles, and share ideas about what FirstNet can do
121 better to get the job done.

122 And because FirstNet will not initially provide mission
123 critical voice capability, and public safety will continue to
124 rely on traditional land mobile radio systems for voice
125 communications, we will take the opportunity to better
126 understand how the development of the new emergency
127 communications technologies will be used together with
128 traditional public safety communications until FirstNet is
129 capable of addressing public safety's mission critical voice

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130 needs.

131 So I am looking forward to hearing from our witnesses
132 today to address these issues we have raised, and hope to
133 leave with a higher level of comfort with regard to
134 FirstNet's progress and confidence in the manner in which it
135 is conducting its business. That is the purpose of this
136 hearing. I thank the witnesses for being here, and now I
137 would yield to the gentlelady from California, Ms. Matsui,
138 for an opening statement.

139 [The prepared statement of Mr. Walden follows:]

140 ***** COMMITTEE INSERT *****

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|
141 Ms. {Matsui.} Thank you very much, Mr. Chairman. I am
142 here in place of Ranking Member Eshoo, who will be arriving
143 shortly. But I really want to thank everyone for being here
144 today. I think it is an important issue, and I am glad that
145 we are looking at the progress that we have made here.

146 FirstNet is a startup, let us not forget that, and like
147 every startup, it has had its growing pains. But since our
148 last hearing, we have seen some progress from FirstNet.
149 FirstNet has hit some milestones, has established a budget,
150 and hired staff. Moving forward we need to work together in
151 a bipartisan manner to ensure its success. If we fail, then
152 we jeopardize the entire system and put America's first
153 responders at risk. It is as simple as that.

154 Throughout the debate on the Spectrum law, I remained
155 focused on the need to responsibly govern any nationwide
156 public safety interoperability network. I believe governance
157 is paramount. It is critical to ensure America's first
158 responders have an efficient and effective interoperability
159 network. It is also important to ensure we spend taxpayer
160 money wisely. Despite some initial concerns about the role

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161 of states taking a back seat, I am pleased that the FirstNet
162 board took this issue head on, and developed a strong,
163 coordinated relationship with the states.

164 The FirstNet board has significant responsibility. I
165 believe the experienced individuals on the board are capable
166 and qualified to ensure our primary goal of achieving a
167 nationwide level of interoperability for our nation's first
168 responders, while ensure fiscal responsibility. It is my
169 hope that we can work together in a bipartisan manner to
170 achieve success for America's first responders.

171 And I yield time to Mr. Lujan.

172 [The prepared statement of Ms. Matsui follows:]

173 ***** COMMITTEE INSERT *****

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|
174 Mr. {Lujan.} Thank you very much to our Ranking Member
175 Matsui. And, Mr. Chairman, this is an important hearing that
176 we are having today. Quite an exciting time, as we talk
177 about the ability to change the way that we can take
178 advantage of modern technology to ensure that first
179 responders have the tools that they need.

180 I was sharing with my legislative director, Andrew
181 Jones, a few minutes ago that, while I sat on the New Mexico
182 Public Regulatory Commission, which is the equivalent of
183 Public Utility Commissions across the country, we were very
184 unique in that we had the state fire marshal under our
185 jurisdiction attached to a Department of Insurance, again, a
186 very unique relationship that was created.

187 But in those conversations, getting to speak
188 specifically to firefighters, with the tragic loss that we
189 have recently had as well with the firefighters in Arizona,
190 who put out many fires in New Mexico, and also those that
191 were from New Mexico, this technology that could be on the
192 body, so that there are eyes and ears around them, monitoring
193 vital signs with them, whether they are firefighters, police

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194 officers, or any of our emergency responders, for that
195 matter, is something that I hope that we can get correct here
196 so that we can keep more people alive, keep them safer, and
197 truly improve our abilities to make sure that communities are
198 safer, for that matter, so I am really excited about this.

199 I think it is intriguing to note that many of the states
200 as well have benefitted from investments in these programs
201 with interoperable systems as a result of the Recovery Act.
202 I know that there is a difference of opinion sometimes with
203 benefits, but I hope that this is one that we can agree on,
204 that this investment was critically important, and that, as
205 we have seen roll out in many states, we can point back to
206 the importance of investment in infrastructure.

207 So, with that, I yield back the balance of my time, and
208 I thank the chairman, the ranking member very much again for
209 this important hearing.

210 [The prepared statement of Mr. Lujan follows:]

211 ***** COMMITTEE INSERT *****

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|
212 Mr. {Walden.} Gentleman yields back the balance of his
213 time, and I appreciate the comments.

214 We will now turn to the vice-chair of the full
215 committee, gentlelady from Tennessee, Ms. Blackburn.

216 Mrs. {Blackburn.} Thank you, Mr. Chairman. I
217 appreciate all of our witnesses being here, and the
218 opportunity to have the hearing, and to do some oversight on
219 FirstNet, and look at how it is standing up, and, due to the
220 passage of the Spectrum Act, we all view public safety as an
221 important Federal Government priority, but we need to do it
222 efficiently, and effectively, and with a little bit of
223 thought toward the price tag, since it is all taxpayer money.

224 As we have seen with the botched rollout of the
225 Obamacare site, government entities don't have all the
226 answers when it comes to new technologies, and rolling out a
227 nationwide interoperable public safety network is going to
228 require significant consultation and help from the private
229 sector. The decisions that are made today will determine the
230 success or failure of FirstNet in its framework. That is why
231 we need benchmarks, status updates, strong leadership that is

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232 focused, and states need to be given resources to manage
233 their operations, if they have found a better way.

234 So I thank you all for being here, and at this time I
235 will yield to the gentleman from Ohio, Mr. Latta, the balance
236 of the time.

237 [The prepared statement of Mrs. Blackburn follows:]

238 ***** COMMITTEE INSERT *****

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|
239 Mr. {Latta.} I thank the gentlelady for yielding. And,
240 Mr. Chairman, thank you very much for holding this hearing
241 today. And I appreciate our distinguished witnesses for
242 appearing to testify today.

243 A robust public safety communications network is
244 critical to protecting the lives and safety of the American
245 people. We have an obligation to ensure that the
246 implementation of FirstNet is successful and facilitates the
247 communication needs of first responders that bravely risk
248 their lives for ours. While I am encouraged by some of the
249 initial progress that FirstNet has made in the development of
250 the nationwide network, I have concerns that FirstNet is not
251 sufficiently engaging the states throughout the process.

252 I look forward to hearing the testimony of our witnesses
253 today, as well as the plans to ensure that FirstNet is
254 closely consulting with states, and that states have a
255 clearly defined role in understanding the responsibility and
256 the terms of the planning, development, funding, and
257 implementation of the broadband network.

258 I thank the chairman, and I yield back.

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259 [The prepared statement of Mr. Latta follows:]

260 ***** COMMITTEE INSERT *****

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|
261 Mr. {Walden.} Anyone else on the Republican side? Mr.
262 Long, do you have any opening statement? Okay. Gentleman
263 yields back the balance of his time. Chair now recognizes
264 the chairman of the--committee, the ranking Democrat, Mr.
265 Waxman.

266 Mr. {Waxman.} Thank you very much, Mr. Chairman.
267 Congress came together to enact the Public Safety Inspector
268 Act last year, delivering on one of the last remaining
269 recommendations from the 9/11 Commission, to create a
270 nationwide interoperable public safety broadband network for
271 first responders. To implement this long overdue mission,
272 Congress created the First Responder Network Authority, or
273 FirstNet. Today we are conducting our second FirstNet
274 oversight hearing in less than 8 months, demonstrating the
275 committee's strong bipartisan interest in ensuring this
276 important job is done right from the very start.

277 And I would like to thank Chairman Ginn of the FirstNet
278 board for testifying again, and updating us on FirstNet's
279 operations and activities. I would also like to join my
280 colleagues in thanking Mr. Turetsky for his service as chief

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281 of the Public Safety and Homeland Security Bureau, and
282 wishing him the best of luck in his new role at the FCC.

283 Given the magnitude of this project, it is critical that
284 FirstNet and its partners operate efficiently and innovate
285 aggressively. To meet this challenge, I believe FirstNet is
286 already moving in the right direction by strengthening its
287 operations through a sound business plan, a growing, talented
288 staff, and a fiscally prudent budget. The Board is now
289 supported by a management team with significant experience in
290 the wireless industry, public safety communications, and
291 financial management. FirstNet is putting its expertise to
292 use, listening to the feedback of various stakeholders, and
293 engaging in extensive outreach to the public safety and
294 governmental communities, as well as vendors, carriers, and
295 technology firms.

296 From a technical perspective, FirstNet is laying the
297 foundation for the network architecture through multiple
298 requests for information that seek input from industry and
299 other stakeholders. The Public Safety and Spectrum Act has
300 also tasked the National Institute of Standards and
301 Technology, or NIST, with conducting research, and assisting

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302 with the development of critical standards and technologies
303 to advance the types of public safety communications to be
304 supported by FirstNet. And I look forward to hearing how
305 NIST has been working with FirstNet to address the technical
306 challenges of standing up the network.

307 One of the many challenges FirstNet has grappled with
308 since our last hearing is how to address the jurisdictions
309 that received funding for public safety networks through the
310 Broadband Technology Opportunities Program, or BTOP. I am
311 especially pleased that FirstNet reached an agreement with
312 the Los Angeles Regional Interoperable Communications System
313 Authority on its BTOP grant. I know reaching such a complex
314 agreement was not easy, and I appreciate the tenacious good
315 faith efforts exhibited by all parties to the agreement.

316 The LARICS project will not only benefit first
317 respondents of the L.A. region, it will also provide FirstNet
318 with an opportunity to gather information and share lessons
319 learned with other projects. The State of New Mexico is also
320 moving forward with its BTOP grant, and I want to thank Dr.
321 Darryl Ackley, Chief Information Officer of the State of New
322 Mexico, for testifying today to discuss his state's agreement

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323 with FirstNet.

324 And, finally, I appreciate that FirstNet has acted
325 promptly to address certain procurement and ethics related
326 matters. I look forward to reviewing the findings of the
327 Department of Commerce, Office of Inspector General when they
328 have completed their audit. In conducting oversight of this
329 fledgling organization, we all share a common interest to
330 protect public investments and guard against waste, fraud,
331 and abuse that may threaten the viability of the network. I
332 hope it will continue to work in a bipartisan way to ensure
333 FirstNet's success. I thank all the witnesses for
334 testifying. I look forward to your testimony, and I want to
335 apologize in advance that I have a conflict, so I won't be
336 able to be here throughout the hearing, but I will have a
337 chance to review the testimony, and my staff, of course, will
338 remain here, listen to everything that is said, and work with
339 you on all of these issues.

340 Thank you, Mr. Chairman, and I yield back the balance of
341 my time.

342 [The prepared statement of Mr. Waxman follows:]

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343 ***** COMMITTEE INSERT *****

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344 Mr. {Walden.} Do you want to yield your remaining 30
345 seconds to Ms. Eshoo?

346 Mr. {Waxman.} Was I supposed to do that?

347 Mr. {Walden.} Not necessarily, but--

348 Mr. {Waxman.} I yield the balance of my time, and maybe
349 even some extra, to Ms. Eshoo.

350 Ms. {Eshoo.} Thank you, Mr. Waxman, and thank you, Mr.
351 Chairman. I just want to--the witnesses, I apologize for
352 being tardy this morning, and I want to thank Congresswoman
353 Matsui for sitting in, and I look forward to your testimony.
354 I want to salute you, Mr. Ginn, for the work that you are
355 doing. I am just so impressed with what has taken place in a
356 short period of time on a myriad of issues. So I thank you,
357 and I am forgoing the fabulous opening statement that I had
358 for everyone, but we will place that in the record. Thank
359 you.

360 [The prepared statement of Ms. Eshoo follows:]

361 ***** COMMITTEE INSERT *****

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|
362 Mr. {Walden.} I was going to have it framed too, and
363 put on the wall alongside mine.

364 I want to welcome our witnesses, and thank especially
365 David Turetsky, who is the Chief, Public Safety and Homeland
366 Security Bureau, Federal Communications Commission. Thanks
367 for your service. I understand today is your last day in
368 that role, but we appreciate your being here. We will try
369 not to make it your worst day in that role. And so we want
370 to thank you for all your dedicated years of service.

371 And I know Mr. Latta was going to introduce our witness
372 from Ohio. If you want to just say some opening remarks
373 about him, and then we will get started?

374 Mr. {Latta.} Well, I appreciate that, Mr. Chairman. I
375 want to welcome Stu Davis, who is the Chief Information
376 Officer for the State of Ohio. You know, Stu has been
377 instrumental in leading Ohio's efforts statewide in public
378 safety emergency management communication system. He has
379 been a leader in the IT industry, and it is an honor to have
380 him here representing the great State of Ohio. So welcome,
381 Mr. Davis.

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382 Mr. {Walden.} We welcome all of our witnesses, and we
383 will start now with the man in charge, who is undertaken this
384 incredibly challenging task, and put a lot of effort into it,
385 no doubt, Mr. Sam Ginn, who is the Chairman of the First
386 Responder Network Authority. Sam, thank you for being here.
387 Thanks for your interaction with the subcommittee, and your
388 service for the country, and we look forward to your
389 statement, sir.

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390 ^STATEMENTS OF SAM GINN, CHAIRMAN, FIRST RESPONDER NETWORK
391 AUTHORITY; DAVID TURETSKY, CHIEF, PUBLIC SAFETY AND HOMELAND
392 SECURITY BUREAU FEDERAL COMMUNICATIONS COMMISSION; DARRYL
393 ACKLEY, CABINET SECRETARY, NEW MEXICO DEPARTMENT OF
394 INFORMATION TECHNOLOGY; STU DAVIS, STATE CHIEF INFORMATION
395 OFFICER AND ASSISTANT DIRECTOR, OHIO DEPARTMENT OF
396 ADMINISTRATIVE SERVICES; DERECK ORR, PROGRAM MANAGER, PUBLIC
397 SAFETY COMMUNICATIONS RESEARCH, OFFICE OF LAW ENFORCEMENT
398 STANDARDS, NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY;
399 AND DENNIS MARTINEZ, CHIEF TECHNOLOGY OFFICER, RF
400 COMMUNICATIONS DIVISION, HARRIS CORPORATION

|
401 ^STATEMENT OF SAM GINN

402 } Mr. {Ginn.} Yes. Well, thank you, Mr. Chairman. I
403 really appreciate the opportunity. And, Congresswoman Eshoo,
404 it is nice to be here, and I hope that this session will be
405 productive, and we will be able to answer your questions.
406 I would just like to start out by making a couple of
407 observations. We can get into all the technical issues

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408 around outreach and contracts and other things, but I want
409 you to understand that we know who holds the responsibility
410 for building this network. We do. And I think one of the
411 critical issues about this bill is Congress recognized you
412 want to put the responsibility on an entity, and that is us.
413 We hold that responsibility, and we hold it with an attitude
414 that we can get this network built. So I think we have to
415 start there.

416 I think the other thing that we have to recognize is
417 this is a large, complex project, enormous scale, enormous
418 technical issues. Critical issues surround outreach to the
419 customers, and I must tell you that we understand if we don't
420 build this system to meet the needs of public safety, it will
421 not be successful. I think principle one is we know we have
422 to do that, and in the testimony we talk about all kind of
423 outreach, and things that we are doing to understand the
424 requirements of public safety, and that information is being
425 filtered in to the technical organization as we design the
426 system.

427 So we will have time to get into those issues, but I
428 don't want us to miss a larger point, and this is it. When

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429 we build this network, and we will build this network, it is
430 going to revolutionize public safety in ways that we don't
431 even understand. It is like most revolutions. When they
432 start out, you know things are going to be different. But
433 when this network is in place, we are going to revolutionize
434 public safety.

435 Let me give you an analogy, and a simple one. I want
436 you to think back, when you got your first cell phone, and
437 how you used it. And now I want you to think back, given the
438 applications that are available for you to download, how has
439 it affected your day to day life? And I would say
440 significantly. And the point I want to make to you is, when
441 this network goes in place, we will see the innovation and
442 creativity of public safety all across the country, where
443 they step up and solve local issues, local situations, that
444 basically lower their costs, or serve the public better, or
445 increase their own safety.

446 So I don't want us to lose the larger point in this
447 conversation, simply to say that we are going to get this
448 done, and when we do, I think there will be a tremendous
449 advantage not only to public safety, but to citizens of the

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450 country, and all of us who are worried about the cost of
451 providing service to the country. And my sense is that we
452 can take them down dramatically.

453 Thank you, Mr. Chairman.

454 [The prepared statement of Mr. Ginn follows:]

455 ***** INSERT A *****

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456 Mr. {Walden.} Mr. Ginn, thank you. They have called
457 votes, and so I think what we will do, before proceeding with
458 others, is go ahead now and recess the committee. We have
459 got a couple of votes, I believe, and then we will be back as
460 soon after the votes as our members can get here, and we will
461 resume this hearing.

462 So, with that, we will stand in recess.

463 [Recess.]

464 Mr. {Walden.} Call back to order the Subcommittee on
465 Communications and Technology, and my apologies that the
466 votes went longer than anticipated, but we have returned, and
467 we appreciate testimony of Mr. Ginn, and I think we were just
468 going to Mr. Turetsky when we had to take a break.

469 So, sir, if you will turn on that microphone, pull it
470 close, we will resume our hearing.

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|

471 ^STATEMENT OF DAVID TURETSKY

472 } Mr. {Turetsky.} Thank you, Chairman, Ranking Member,
473 and Vice-Chairman. Thank you for this opportunity to discuss
474 the FCC's efforts to support FirstNet through implementation
475 of the Middle Class Tax Relief and Job Creation Act of 2012,
476 and our ongoing mission to enhance public safety and
477 emergency communications.

478 Traditional public safety land mobile systems continue
479 to provide mission critical voice capability for first
480 responders, and will continue to do so for some time, and
481 must be maintained. But they cannot support the data rich
482 applications that are more and more necessary for public
483 safety personnel to do their jobs. In part, that is why
484 Congress passed the Act, to create a nationwide interoperable
485 wireless broadband network for the public safety community.

486 As Chairman Wheeler stated earlier this week,
487 communications networks are changing, and fast. And where
488 technological change and public safety intersect, there are
489 both challenges and opportunities. Congress included some

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490 specific tasks for the FCC to support FirstNet's mission when
491 it passed the Act in February 2012. For example, it directed
492 the FCC to establish the technical advisory board for first
493 responder interoperability within 30 days. That board then
494 had 90 days to develop minimum technical requirements to
495 ensure a nationwide level of interoperability for the
496 FirstNet network. The commission then had 30 days to approve
497 and transmit the recommendations to FirstNet. The commission
498 met each of these deadlines.

499 Beyond these specific tasks, the commission has also
500 worked to fulfill its statutory obligation to ``take all
501 actions necessary to facilitate the transition'' of the 700
502 megahertz public safety broadband spectrum to FirstNet. Last
503 month the commission unanimously adopted a report and order
504 that established the basic technical rules for the FirstNet
505 spectrum. Those rules will not only help to accomplish goals
506 like preventing interference, but, vitally, will give vendors
507 guidance they need to compete and innovate, and enable the
508 commission to certify equipment promptly. These rules are
509 supported by the record, and are consistent with comments
510 from FirstNet, and others.

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511 We recognize that we still have more to address under
512 the law. For example, in some areas, there are incumbent
513 public safety narrow band operations in the FirstNet spectrum
514 which pre-date the designation of this spectrum for broadband
515 use. The Act also provides that if a state seeks to exercise
516 its opt-out rights, the commission must either approve or
517 disapprove the state's opt-out plans, based on specific
518 statutory criteria. We intend to provide clear guidance to
519 the states and FirstNet on how that will work before states
520 have to choose whether to opt out.

521 The commission is also considering how best to implement
522 the T-band provisions of the Act, which require future
523 relocation of those public safety systems, and auction of the
524 vacated spectrum. The Bureau issued a public notice on this,
525 and received comments over the summer. We will work with all
526 stakeholders and our federal partners to ensure that these
527 transitions occur seamlessly and transparently as much as
528 possible.

529 Next, the public safety community faces another
530 transition to NG-911, which can revolutionize the way the
531 public seeks help. This is tightly interwoven with the

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532 FirstNet network, as NG-911 and the FirstNet network can be
533 complementary components of an end to end broadband echo
534 system. Public safety call centers will serve as hubs for
535 data from 911 callers, such as photos or film clips, which
536 can then be disseminated to first responders through the
537 FirstNet Network. One step the FCC is taking to facilitate
538 the transition to NG-911 is to advance Text-to-911. People
539 expect to be able to use the means of communications that
540 they use every day to get help, and text messaging is part of
541 the fabric of modern life. It also is the only practical or
542 safe way to reach out for help in some circumstances. Also,
543 wireless calls to 911 increasingly originate indoors.
544 Obtaining an accurate location for those callers can be a
545 challenge, and we held a major workshop at the FCC about that
546 earlier this week.

547 Finally, I want to mention the successful use of
548 wireless emergency alerts to warn the public of emergencies.
549 Just this past weekend, mobile users in the path of tornadoes
550 in Illinois received warnings from the National Weather
551 Service sent via the Wireless Emergency Alert System.
552 Reports are that this helped some people get to safety before

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553 the tornadoes struck. Since implementation in the summer of
554 2012, WEA, as we call it, warnings have helped to recover
555 kidnapped children, evacuate areas during Super-storm Sandy,
556 and otherwise alert people to get to safety in an emergency.

557 In closing, transition is the watchword, and the
558 commission intends to achieve it by working with all
559 stakeholders in a transparent and responsible manner. Thank
560 you.

561 [The prepared statement of Mr. Turetsky follows:]

562 ***** INSERT B *****

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|

563 Mr. {Walden.} Thank you, and thanks to the FCC for
564 their good work in this area, and meeting the deadlines.

565 We will go now to Mr. Darryl Ackley, who is the Cabinet
566 Secretary for the New Mexico Department of Information and
567 Technology. Mr. Ackley, thank you for being here today, and
568 thanks for your patience. We look forward to your testimony,
569 sir.

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|

570 ^STATEMENT OF DARRYL ACKLEY

571 } Mr. {Ackley.} Well, good morning, Mr. Chairman, Ranking
572 Member, members of the subcommittee. Thank you as well for
573 the opportunity to be here today to present on the status of
574 the project in New Mexico in public safety broadband.
575 Excited to be here today. I am the Chief Information Officer
576 for the State of New Mexico, and Cabinet Secretary over the
577 Information Technology Department, appointed in February of
578 2011 by Governor Susanna Martinez when she took office. I
579 also serve as the representative from the National
580 Association of State Chief Information Officers to the
581 FirstNet Public Safety Advisory Committee, but asked to be
582 here today to update specifically on the activities within
583 the State of New Mexico.

584 A little bit of background, the IT Department in New
585 Mexico is the enterprise service provider for the state, in
586 traditional domain, but we also operate the Public Safety
587 Land Mobile Radio Communication Network for our state's first
588 responders and officials, to include a fairly large tower

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589 asset, and land mobile radio component. We operate that in a
590 chargeback manner, and provide hopefully great service for
591 our citizens in the state.

592 In 2010 New Mexico was one of the applicants and
593 recipients of a BTOP grant to build out both additional
594 digital microwave infrastructure within the state, but also
595 to deploy a pilot broadband program, LTE, within the 10
596 megahertz of spectrum that were dedicated for public safety
597 under the Public Safety Spectrum Trust. In 2011, when I took
598 the office, we incorporated that into a comprehensive plan to
599 modernize public safety communications within the State of
600 New Mexico along three areas. One, having a resilient and
601 robust backhaul infrastructure. This is towers, et cetera.
602 The second, to address critical gaps in our state's land
603 mobile radio communications. But the third, and in line with
604 our BTOP grant, to deploy public safety broadband within the
605 state, and we saw these three as being very compatible with
606 one another.

607 As part of that plan, we began work in earnest on the
608 tower upgrades, which are nearly complete, providing us a
609 digital microwave backbone. At the juncture we were about to

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610 deploy in the LTE for the public safety broadband, of course,
611 in 2012 was when the Spectrum Act was passed, creating
612 FirstNet, and opening the D block for use by that entity.
613 Our grant was partially suspended in that regard in the LTE
614 while the FirstNet board was brought into being, while they
615 organized and got moving.

616 In December of 2012, so about a year ago, we were
617 visited by board members Jeff Johnson and Sue Swinson to
618 review our BTOP program, as they visited all the BTOP waiver
619 recipients. At that time we presented our original plan for
620 a build-out in that LTE spectrum, but also provided some
621 alternative plans to work with the board through, in case
622 they wanted to see some different options. We presented a
623 pilot project build-out along the Southwest border that we
624 thought could have some impact in our state, but also provide
625 some valuable learning conditions to the board. Then that
626 had quite a bit of resonance, so from that point on we began
627 working with the FirstNet board, as well as with folks at
628 NTIA and FCC to develop that into a pilot project, as well as
629 begin negotiations with the FirstNet board for a lease in the
630 spectrum so that we could begin to build that out.

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631 Over the course of about 6 months we iterated with them,
632 we worked through that negotiation. Of course, you know, any
633 negotiation has its ups and downs. New Mexico very much
634 wanted to make sure that what we had in place would serve our
635 citizens, and our constituents, but also give us flexibility,
636 and, I am sure with FirstNet, give them the flexibility that
637 they needed. I am proud to say we accomplished that. We
638 have a non-exclusive state-wide lease in that spectrum, and
639 are working towards developing the RFP to proceed with the
640 Southwest border project.

641 We have been granted that lease with three key learning
642 conditions that, in conjunction with the FirstNet board, we
643 developed for that build-out. And those key learning
644 conditions are, one, demonstrating the ability of, you know,
645 cross-jurisdictional interaction by working with the deployed
646 corps in Harris County, Texas. The second being looking at
647 the frequency issues, the spectrum issues, associated with
648 operating on the U.S.-Mexico border, and what that is going
649 to mean on a larger scale as the FirstNet build-out rolls
650 out. And then, third, the opportunity to potentially
651 incorporate federal users onto that system as we deploy,

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652 given the presence of Customs and Border Patrol, Immigrations
653 and Customs, and other federal operations along that
654 boundary. So, at that point, we are working on publishing
655 the RFPs to start the first phase of this operation, and hope
656 to, you know, begin that in the First Quarter of 2014.

657 With that, my time is about up, and I would love to
658 answer any questions that you have later.

659 [The prepared statement of Mr. Ackley follows:]

660 ***** INSERT C *****

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|

661 Mr. {Walden.} All right, Mr. Ackley, thank you very
662 much. We look forward to learning more about the experience
663 that New Mexico has had. Sounds like it has been a good one.

664 Mr. Davis, we are delighted to have you here. Mr. Stu
665 Davis is a State Chief Information Office and Assistant
666 Director of the Ohio Department of Administrative Services.
667 We are very appreciative that you were able to join us, and
668 we look forward to your testimony too, sir. Thank you.

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|

669 ^STATEMENT OF STU DAVIS

670 } Mr. {Davis.} Well, thank you very much, Chairman
671 Walden, Ranking Member Eshoo, and members of the
672 subcommittee. Thank you for the opportunity to testify on
673 FirstNet and the nationwide Public Safety Broadband Network
674 Initiative. My name is Stu Davis. I currently serve as the
675 Ohio State Chief Information Officer, and the Assistant
676 Director of the Ohio Department of Administrative Services.
677 As the State CIO, I lead, oversee, and direct state agency
678 activities related to information technology development and
679 its use. As Assistant Director of DAS, I oversee the Office
680 of Information Technology, which delivers information
681 technology and telecommunications services to state
682 government agencies, boards, and commissions. I also serve
683 as the Chair of the Multi-Agency Radio Communication Systems,
684 MARCS, on that steering committee, which is Ohio's land
685 mobile radio system that supports voice and data
686 communications of statewide public safety and emergency
687 management. I also chair Ohio's Emergency Service IP

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688 Network, ESINet, steering committee, focused on Ohio's Next
689 Gen 911 solution.

690 The Ohio General Assembly had concerns about FirstNet,
691 and passed Senate Concurrent Resolution 15 earlier this year.
692 Specific concerns were around the business plan, the costs
693 the state would bear, either mandated or obligated, the
694 ability to opt-out with no cost if not appropriate for Ohio,
695 to have written assurances that it would meet, exceed current
696 levels of service in the areas of reliability, redundancy,
697 and state-based system control, as well as fair market
698 compensation for access and utilization of state-owned assets
699 in support of network deployment. It called for this
700 subcommittee to continue these meetings, and we commend you
701 for doing so. Thank you.

702 FirstNet outreach has significantly improved, and is
703 more consistent than we have seen in the past, which is
704 great. We still have questions regarding requirements, user
705 community rules and responsibilities, the overarching
706 business case, and defined businesses and operational models,
707 and, of course, near and long term funding. We need to have
708 further insight into these components so we can properly plan

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709 for future initiatives.

710 It is important that FirstNet views relationships with
711 the states as a partnership, and that continues. Currently
712 the planning grants available to states are focused on
713 outreach and education. For FirstNet to be successful, they
714 need to focus on the development of those relationships with
715 the state, modifying their approach to be one of engagement,
716 not product marketing to states. An example of partnering
717 would be strong engagement on the requirements, and a
718 definition of roles and responsibilities. It would make
719 sense to have individual state discussions, and perhaps
720 negotiate these terms, before releasing an RFP to build out
721 FirstNet. If this does not take place, there will be very
722 little time for the states to react and determine the best
723 path forward. If we are not part of those negotiations of
724 those details of a blanket RFP prior to its release, it will
725 be detrimental to both parties.

726 There are numerous requirements that need to be defined
727 before architecting a solution. This runs the gamut from
728 user, to technical, to operational requirements. It is
729 difficult to architect a solution to undefined user

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730 requirements, and without clear expectations. FirstNet needs
731 to be extremely sensitive to the fact that moving full steam
732 ahead on identifying the technical aspects of the system
733 several months before regional outreach positions are in
734 place can be a little risky. Choosing technical
735 specifications in the absence of understanding the needs of
736 the state could also be detrimental to the long term
737 viability of the network.

738 We need to know these requirements and understand what
739 the impact of these efforts will have on existing Ohio
740 initiatives. In Ohio, this would be MARCS. It would also be
741 the consideration of other state-wide initiatives, such as
742 Next Generation 911, which should be viewed as a component of
743 FirstNet. Several states, including Ohio, have stated that
744 current Next Gen design efforts must integrate with FirstNet
745 in the future. Understanding the impact on MARCS, as well as
746 Next Generation 911, is critical to our planning process.

747 We would also like to see the business model. I
748 understand the difficulties there, but it is critical for us
749 to be able to understand the sustainability of the effort
750 that we have going forward. Building the cost recovery and

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751 usage rates will be instrumental in the adoption of the
752 effort. The answer I get is, build, and ongoing costs will
753 be supported through partnerships with the state, and
754 subscription from early adopters. I don't believe this is
755 sustainable. Someone has to pay for operations while
756 adoption ramps up and takes place.

757 The concern would be the responsibility for the
758 operational costs, and, more to the point, adoption of MARCS,
759 at \$20 a month, gets significant pushback from some of our
760 user community. Volunteer firefighters push back on \$240 a
761 year to have an operational radio on our system. How will
762 they pay for both? I would like to better understand these
763 aspects before we can move forward a little bit.

764 Again, with the capital investment from Federal
765 Government, where is the revenue to sustain the FirstNet
766 operations in each state? The interpretation of public
767 safety use only must be clearly defined. Without the revenue
768 from broad secondary use of access capacity, the model may
769 not be sustainable.

770 In Ohio we are working through IT optimization efforts
771 to align all our IT assets, resources, and current

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772 expenditures to reduce duplication of effort and increase
773 efficiencies of the benefit to the citizen. A key of this is
774 adoption and leveraging of past investments. We are
775 expending dollars today to support law enforcement and first
776 responders. These past investments, I mentioned MARCS and
777 Next Generation 911, there has to be a path forward to
778 protect those current and previous investments so that these
779 systems are integrated and leveraged. We need to be able to
780 plan and forecast impacts and direction of current efforts to
781 be able to align with FirstNet. Understanding the
782 operational costs and potential costs to the user community
783 will be directly related to law enforcement and first
784 responder adoption.

785 I understand that FirstNet will also leverage, or
786 attempt to leverage, existing vertical assets the state
787 currently owns, lease, or is carrying debt on. There are
788 financial, legal, jurisdictional issues regarding use of
789 existing state, local, and private assets. There are
790 numerous bonding and legal considerations that must be
791 thought through for many states.

792 We continue to have concerns about funding, and it is

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793 important to note that, after having said all these things, I
794 am supportive of the concept of the Nationwide Public Safety
795 Broadband Network, and I believe Ohio is uniquely positioned
796 to take advantage of the significant opportunity to
797 coordinate and converge multiple efforts. These efforts
798 include MARCS, as well as the Ohio Next Generation System,
799 and I look forward to the opportunity to partner on this
800 effort and ensure impacts to current initiatives are in
801 alignment with Ohio's direction.

802 Thank you very much.

803 [The prepared statement of Mr. Davis follows:]

804 ***** INSERT D *****

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|

805 Mr. {Walden.} Mr. Davis, thank you for your testimony.

806 I think you have summed it up well. We all want it to work,

807 and be affordable, and that is what we are striving to get

808 to.

809 Mr. Dereck Orr is the Program Manager, Public Safety

810 Communications Research, Office of Law Enforcement Standards,

811 National Institute of Standards and Technology. That is a

812 long title. But we are glad you are here, and we look

813 forward to your testimony, sir. Please go ahead.

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|
814 ^STATEMENT OF DERECK ORR

815 } Mr. {Orr.} Thank you very much. Chairman Walden,
816 Ranking Member Eshoo, members of the subcommittee, thank you
817 for the opportunity to appear before you today to discuss the
818 advancement of public safety wireless communications. I
819 serve as the Program Manager for the Public Safety
820 Communications Research Program, which is a joint effort
821 between the National Institute of Standards and Technology
822 and the National Telecommunications and Information
823 Administration at the Department of Commerce Labs located in
824 Boulder, Colorado.

825 The Public Safety Communications Research Program serves
826 as the technical lead for several administration initiatives
827 focused on public safety communications. Our longest
828 standing program sponsor is the Department of Homeland
829 Security's Office of Interoperability and Compatibility
830 within the Science and Technology Directorate. The PSCR
831 program is also involved in many of DHS's communications
832 interoperability related programs, including the SAFECOM

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833 program within the Office of Emergency Communications.
834 Additionally, PSCR is sponsored by the First Responder
835 Network Authority to advance public safety broadband
836 communication standards, and is developing additional
837 research projects related to public safety broadband
838 communications that the PSCR is uniquely qualified to
839 execute. NIST greatly appreciates as well the confidence
840 that Congress placed in NIST by allocating critical funding
841 for public safety communications research and development in
842 the legislation that established FirstNet.

843 Working alongside our federal partners, the PSCR program
844 has played the lead technical role in key advancement in
845 public safety communications over the last decade. In 2010
846 the PSCR program, in partnership with DHS, deployed in the
847 Boulder area a first of its kind fourth generation, long term
848 evolution, 700 megahertz public safety broadband
849 demonstration network. This network was developed in
850 collaboration with industry through cooperative research and
851 development agreements between NIST, NTIA, and over 75
852 individual industry partners to date. This public/private
853 partnership has resulted in one of the most vendor diverse 4G

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854 LTE networks in the world. The demonstration network allows
855 PSCR to test and evaluate key broadband features critical to
856 public safety, including multi-vendor interoperability,
857 indoor, in-building coverage, and extended cell coverage
858 possibilities for rural areas. In addition, future work will
859 focus on priority access and quality of service for the
860 network.

861 As part of PSCR's modeling and simulation efforts, PSCR
862 conducts performance analysis of advanced communications
863 networks using commercially available and in-house customized
864 modeling simulation tools. In support of a nationwide public
865 safety broadband network, PSCR develops metrics and tools
866 used to characterize the performance of LTE networks, which
867 will help inform decision-making about network design.

868 PSCR continues to lead the requirements development
869 efforts for the public safety broadband, working directly in
870 support of the National Public Safety Telecommunications
871 Council. NPSTC's broadband working group has developed
872 requirements documents for mission critical voice, local
873 control, and priority and quality of service that clearly
874 define public safety's expectations of the nationwide

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875 broadband network capabilities.

876 In December 2012 NPSTC delivered the public safety
877 broadband launch requirements to the FirstNet Board of
878 Directors and the Public Safety Advisory Committee. The
879 launch requirements define public safety's expectations for
880 the nationwide network at launch. More recently, NPSTC
881 delivered push-to-talk over LTE requirements to FirstNet.
882 Current requirements efforts focus on the definition of
883 public safety grade and it applies to the nationwide
884 broadband network. These requirements documents are used as
885 the fundamental basis of PSCR's formal standards development
886 efforts related to LTE on behalf of FirstNet and the public
887 safety community. Based upon testing and evaluation,
888 modeling and simulation, and requirements gathering efforts,
889 all of which inform the standards development effort at PSCR,
890 there have been significant advances in the commercial LTE
891 standards specific to public safety.

892 In December 2012 public safety was identified as the
893 number one priority for the current version of LTE standards
894 being developed within the third generation partnership
895 project, which is the official standards development

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896 organization for LTE. This is a major accomplishment, given
897 public safety's limited user base, compared to the worldwide
898 commercial wireless user base. With this added momentum, and
899 as part of the NPSTC mission critical voice requirements,
900 PSCR is addressing the two largest gaps identified in LTE's
901 ability to support mission critical voice capabilities, which
902 are direct mode, device-to-device communications, and group
903 communications. PSCR also has recently launched an effort to
904 standardize mission critical push-to-talk LTE within 3GPP.

905 And, finally, working in the international standards
906 community, alongside public safety from other countries, will
907 lead to a global public safety LTE marketplace. This should
908 decrease costs, while increasing the availability of advanced
909 features to the worldwide public safety community.

910 In conclusion, PSCR will continue its public safety
911 driven approach to advancing communications technologies for
912 our nation's first responders, and we look forward to
913 continuing and expanding our valuable partnerships across
914 public safety, local, state, tribal, and Federal Government
915 organizations, as well as industry. Again, I am honored to
916 be here before the subcommittee today, and I am happy to

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917 answer any questions you might have.

918 [The prepared statement of Mr. Orr follows:]

919 ***** INSERT E *****

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920 Mr. {Walden.} Mr. Orr, thank you for your testimony, we
921 appreciate that.

922 And now, because we have a lot of doctors before our
923 committee, we can't have a hearing without at least a doctor
924 on the panel, Dr. Dennis M. Martinez, Chief Technology
925 Officer, RF Communications Division, Harris Corporation. Dr.
926 Martinez, we are delighted to have you here, and we look
927 forward to your expert testimony.

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928 ^STATEMENT OF DENNIS M. MARTINEZ

929 } Mr. {Martinez.} Good morning, Mr. Chairman, Ranking
930 Member Eshoo, and members of the subcommittee. Thank you for
931 inviting me to testify today on FirstNet, and the advancement
932 of public safety wireless communications. I previously
933 testified before this committee on May 21 of 2011, during the
934 hearing on creating an interoperable public safety broadband
935 network. Last year I served as an appointed member of the
936 Technical Advisory Board for First Responder
937 Interoperability. In that role, I joined leaders
938 representing state and local governments, public safety
939 entities, wireless service providers, and equipment
940 manufacturers in developing the recommended minimum technical
941 requirements to ensure nationwide interoperability for the
942 National Public Safety Broadband Network. These requirements
943 were conveyed by the FCC to FirstNet, and, as required by
944 law, will be incorporated in future RFPs issued by FirstNet.
945 I am here today to provide this committee with a
946 technical perspective on FirstNet's mission and activities,

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947 with the goal of informing the committee on areas of progress
948 since passage of the landmark legislation last year. There
949 are four activities that I will address, pilot projects,
950 standards of development, regulatory policy, and response to
951 FirstNet inquiries.

952 Since January 2012, Harris has implemented pilot LTE
953 projects in five jurisdictions. Most recently, Harris
954 conducted live demonstrations of a deployable solution in
955 remote Northern California that is not served by commercial
956 broadband networks. These pilot projects utilized public
957 safety broadband spectrum, and were implemented almost
958 entirely at Harris expense, and we received support from the
959 FCC and the FirstNet team, who facilitated and approved short
960 term spectrum use authorizations.

961 We had several objectives for launching these projects.
962 First, we aimed at creating a learning experience for public
963 safety entities that wanted firsthand knowledge of the
964 exciting prospects promised by the eventual broadband
965 network. Additionally, we sought learning experiences that
966 would advance our own understanding of how to apply this
967 state of the art commercial technology in a mission critical

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968 setting. Our findings were simple, but profound.

969 First, while there were many public safety entities that
970 currently use commercial broadband networks in day to day
971 operations, the prospect of a dedicated network optimized for
972 their mission critical needs is highly valued. In fact, many
973 of these entities are anxious to support deployment of the
974 broadband network in their jurisdiction. Secondly,
975 commercial LTE technology can be configured, through rigorous
976 design practices, to support some mission critical needs
977 today. The key gap that currently exists is mission critical
978 voice. Notwithstanding that, we successfully demonstrated
979 technology that permits interoperability between legacy and
980 mission critical radio systems, and services that operate
981 over Band 14 LTE.

982 And that brings me to the second topic area, which is
983 the development of standards that will support mission
984 critical voice on the broadband network, and enable
985 nationwide interoperability. Several activities are underway
986 in 3GPP, TIA, and ATIS that are addressing this need. Under
987 the Spectrum Act, FirstNet must represent the interest of
988 public safety users in these standards development

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989 activities, and to do so in consultation with the director of
990 NIST, the FCC, and the Public Safety Advisory Committee.
991 Although not explicitly noted in the Spectrum Act, we also
992 believe there is significant benefit for FirstNet to consult
993 and collaborate in this process with private sector entities
994 likely supplying the required products and services that
995 implement these emerging standards.

996 In addition to the development of standards, continuing
997 evolution of the regulatory framework for FirstNet will be
998 important to its success. As a manufacturer of LTE user
999 equipment, Harris is pleased with the significant milestone
1000 that was achieved earlier, when the FCC released the first
1001 iteration of Band 14 service rules. These rules are a
1002 significant step, and one that is required for OEMs to
1003 continue their investment in products and technologies that
1004 FirstNet will need in its deployment, and first responders
1005 will need in order to operate on the NPSBN. Toward that
1006 goal, and in advance of these final requirements, we note
1007 that FirstNet has done significant work to require their
1008 early build-outs are interoperable, and should be commended
1009 for supporting efforts to make procurements for these

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1010 projects competitive and multi-vendor.

1011 Finally, we commend the FirstNet team on their
1012 significant success and progress in their RFI process. That
1013 has given us, the private sector, a significant window of
1014 visibility into potential requirements for equipment and
1015 services that they will procure. As FirstNet completes its
1016 state and local collaboration and begins finalization of the
1017 technical requirements for the broadband network, we
1018 encourage FirstNet to engage the private sector at each
1019 opportunity. This is an essential step for continued
1020 investment by the private sector in FirstNet, which, in turn,
1021 is important for timely availability of products and services
1022 that FirstNet will need to procure.

1023 In closing, I once again thank the committee for
1024 inviting me to testify on this matter of great importance to
1025 the American public. Harris remains eager to support
1026 FirstNet, and this committee, to make this happen. Thank you
1027 very much.

1028 [The prepared statement of Mr. Martinez follows:]

1029 ***** INSERT F *****

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|

1030 Mr. {Walden.} Thank you, Dr. Martinez, we appreciate
1031 your testimony. We will go to questions now.

1032 Mr. Ginn, in my opening statement I expressed a concern
1033 we have heard from a number of potential partners and
1034 stakeholders, namely that FirstNet doesn't seem to know what
1035 it wants to be. I don't mean that as a personal criticism.
1036 It is a question I think I would like to get to Mr. Ackley
1037 and Mr. Davis. One state says, we are good to go, and it all
1038 worked well. The other state is saying, I am not so sure,
1039 and what this is going to mean in the long term costs and
1040 implications.

1041 And so I guess my question would be, can you tell us
1042 what is FirstNet's plan to realize this network?

1043 Mr. {Ginn.} Well, that is going to take a few moments.
1044 First off, on the principle of working with other states,
1045 from our point of view, needs to be a joint effort.

1046 Mr. {Walden.} Um-hum.

1047 Mr. {Ginn.} It should be jointly negotiated. When we
1048 reach the point where we have completed the RFP and presented
1049 to the states, there will be no surprises in Ohio as to what

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1050 is in the--

1051 Mr. {Walden.} So let me stop you there for a second,
1052 because that was one of the issues Mr. Davis raised, is how
1053 that communication on the RFP will take place. Correct, Mr.
1054 Davis?

1055 Mr. {Davis.} That is correct. I think what we want to
1056 make sure of is that the collaboration piece stays in place,
1057 and that those technical documents that go out to--

1058 Mr. {Ginn.} And, by the way, I agree with that. As a--

1059 Mr. {Walden.} Okay.

1060 Mr. {Ginn.} --matter of fact--

1061 Mr. {Walden.} Good.

1062 Mr. {Ginn.} --if you look at our work plan for 2014, we
1063 are establishing 10 regional offices that complement FEMA
1064 areas, and their sole responsibility is going to be working
1065 with states in coming up with radio access networks to feed
1066 into the national grid. So maybe one of the issues here is
1067 his expectation is beyond our ability to deliver. But when
1068 you think about, it takes 4 to 8 months to hire a single
1069 employee in the Federal Government. You don't get these
1070 things done that quickly.

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1071 So my comment to Mr. Davis would be, work with us. We
1072 want to do this as partners. Hopefully, at the end of this,
1073 we will have agreed on a network plan for Ohio. And when it
1074 is presented, you will know all the details, even before it
1075 is presented--

1076 Mr. {Walden.} So the other issue that I believe you
1077 raised, Mr. Davis, was the long term financial stability of
1078 FirstNet, kind of what you are buying into, and what it is
1079 going to cost you long term, right? And what about state
1080 assets? Do you think you are going to be asked to put all
1081 your assets in the pot and say goodbye to them, and then be
1082 part of FirstNet with an open ended cost, potentially, down
1083 the road? Is that the concern Ohio has?

1084 Mr. {Davis.} I think it has a variety of different
1085 components to it, and I think we just have to work through
1086 those things. And--

1087 Mr. {Walden.} Uh-huh.

1088 Mr. {Davis.} --it is sort of a step-by-step process.
1089 And every state is going to have similar issues, in terms of
1090 leveraging existing assets, even if it is--

1091 Mr. {Walden.} Uh-huh.

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1092 Mr. {Davis.} --lease space, and things that we have
1093 going on. And phase two of the planning grants that are out
1094 there will hopefully address some of those things. But the
1095 questions that we get when we go out and do the outreach
1096 components within Ohio all come back to, what is the cost?
1097 We recognize that we don't know those things today--

1098 Mr. {Walden.} Right.

1099 Mr. {Davis.} --but the more that we can have a
1100 sustainable business model at least--to their process, the
1101 better off we are all going to be in the long run.

1102 Mr. {Ginn.} To give you some idea of the complexity of
1103 this, 70 percent of the cost of the network is going to be in
1104 cell site locations, okay?

1105 Mr. {Walden.} Right.

1106 Mr. {Ginn.} It is a high percentage. It matters in the
1107 total economics. If--

1108 Mr. {Walden.} Of course.

1109 Mr. {Ginn.} --we could get each state and the Federal
1110 Government to allow us to use those without fees, it would
1111 dramatically reduce the cost of this network, okay? Now, he
1112 would--

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1113 Mr. {Walden.} Well, that was one of our original ideas,
1114 I think, was to build from the state up, and not create a
1115 separate set of systems, but--

1116 Mr. {Ginn.} Well, I guess the way I would say that,
1117 maybe a little differently, we have to start out with a core
1118 that covers the entire United States, and then we have to
1119 make sure that--

1120 Mr. {Walden.} Um-hum.

1121 Mr. {Ginn.} --state systems are comparable--

1122 Mr. {Walden.} Interoperable.

1123 Mr. {Ginn.} --with connecting into that core, around
1124 interoperability, and security, and reliability, and all the
1125 other issues that we will mandate.

1126 Mr. {Walden.} Um-hum. So, Mr. Ackley, in the 11
1127 seconds I have left, what gave you confidence in your state
1128 to go ahead and enter into this arrangement?

1129 Mr. {Ackley.} Well, Mr. Chairman, I think the fact that
1130 New Mexico had done some substantial work in this arena
1131 before the passage of the Spectrum Act, so this was something
1132 that we were already incorporating into our planning, and
1133 working towards. And I think that gave us a position to be

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1134 able to work with the FirstNet board from some assumptions we
1135 had developed early on, with respect to--

1136 Mr. {Walden.} And you are comfortable with the long
1137 term potential cost implications, and the ability to afford
1138 participation down the road?

1139 Mr. {Ackley.} Well, Mr. Chairman, I think there are a
1140 lot of good points that are raised--

1141 Mr. {Walden.} Um-hum.

1142 Mr. {Ackley.} --here that need to be addressed. You
1143 know, comfort is something that is going to increase, I
1144 think, as these issues are addressed. You know, things such
1145 as asset--

1146 Mr. {Walden.} Um-hum.

1147 Mr. {Ackley.} --cost allocation and recovery, the--

1148 Mr. {Walden.} Right.

1149 Mr. {Ackley.} --usage, the business model, and those
1150 sorts of things. I think, from our position, it is
1151 something, if we can maintain the involvement as a state, and
1152 working with FirstNet on this--

1153 Mr. {Walden.} Right.

1154 Mr. {Ackley.} --that we can continue to develop that

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1155 comfort.

1156 Mr. {Walden.} All right. My time has expired, and I am
1157 going to turn the gavel over to Mr. Latta, and I am going to
1158 recognize Ms. Eshoo for questions. I have to excuse myself
1159 to take a meeting. But I want to thank you all, and know
1160 that you know we are concerned. Want to make sure this all
1161 works for first responders, and for the country. We commend
1162 the work that has been done. I know it is a huge startup,
1163 and we just want to continue to do our appropriate oversight.

1164 I recognize the gentlelady from California.

1165 Ms. {Eshoo.} Thank you to each one of you for traveling
1166 here, and for your excellent written testimony, as well as
1167 the spoken testimony, and for your patience. Inevitably,
1168 when we have, what I think, are some of the most important
1169 hearings, the bells go off, and you have to wait, so thank
1170 you for your patience.

1171 Mr. Ginn, thank you for your leadership. This is a
1172 heavy lift, and it is somewhat complicated. It is not as if
1173 we don't have any systems in our country. We do. The
1174 problem is they are not interoperable. And these systems
1175 have been in place longer. Obviously, they have a history.

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1176 What we are doing now is really rewriting history. And so
1177 there is a push and a pull in different places. I understand
1178 it. Change is not easy to make, and it is menacing to people
1179 that have done it a certain way for a long, long time. I
1180 don't hold it against them, but I think the signal is, you
1181 know what? We are on the move. This has to change. It has
1182 to change because of what our country endured.

1183 So thank you for your leadership, and I think that your
1184 credentials from the private sector are superb. And I don't
1185 want to say it is good to hear about your frustrations, but
1186 it also demonstrates that it is difficult to merge the public
1187 and the private. But I have confidence in you, I really do.

1188 Now, in September the FCC, Mr. Ginn, announced, you
1189 know, this landmark voluntary industry solution to achieve
1190 interoperability in the lower 700 megahertz band. What I
1191 would like to know is what steps is FirstNet taking to
1192 leverage this opportunity, if, in fact, you can, and do you
1193 think that the agreement is going to provide the first
1194 responders with more roaming opportunities, and greater
1195 redundancy? I am very excited about--

1196 Mr. {Ginn.} Yeah. You are talking about the

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1197 interoperable task force at the FCC that gave us the
1198 standards?

1199 Ms. {Eshoo.} No. This is the voluntary solution that
1200 was agreed upon with industry stakeholders. If you are not
1201 familiar with it, I can go on to--

1202 Mr. {Ginn.} Yeah. No, maybe--

1203 Ms. {Eshoo.} --another question. Yeah. No, I can go
1204 on to another question. I have--

1205 Mr. {Ginn.} Okay.

1206 Ms. {Eshoo.} --2 minutes and 23 seconds, and a trip out
1207 to Dulles.

1208 To Dr. Martinez, thank you for being here again. In
1209 your testimony you talked about the importance of developing
1210 standards for mission critical voice, and that is a very,
1211 very important area. Does the absence of such a standard
1212 prevent your company from supporting build-out projects? I
1213 am not so sure, from your testimony, if that is the case.
1214 And, you know, I mean, the examples would be Los Angeles, or
1215 the State of New Mexico.

1216 Mr. {Martinez.} Congresswoman Eshoo, no, it does not.
1217 The--

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1218 Ms. {Eshoo.} Good.

1219 Mr. {Martinez.} --absence of a standard is not a pre-
1220 requisite to proceed with a BTOP program.

1221 Ms. {Eshoo.} Um-hum.

1222 Mr. {Martinez.} However, to the extent that such a
1223 program would have a requirement for mission critical voice,
1224 then we have to ensure that the implementation of that
1225 requirement in a BTOP program would not preclude future
1226 compatibility with whatever FirstNet chooses as a mission
1227 critical standard.

1228 Ms. {Eshoo.} So it complicates it, is that what you are
1229 saying?

1230 Mr. {Martinez.} I would say it is a factor that has to
1231 be considered, but--

1232 Ms. {Eshoo.} Um-hum.

1233 Mr. {Martinez.} --it should certainly not be a
1234 showstopper for proceeding with a--

1235 Ms. {Eshoo.} Good.

1236 Mr. {Martinez.} --BTOP project.

1237 Ms. {Eshoo.} Okay.

1238 Mr. {Martinez.} And, by the way, not all BTOP projects

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1239 would necessarily require a--

1240 Ms. {Eshoo.} Um-hum.

1241 Mr. {Martinez.} --mission critical voice component.

1242 Ms. {Eshoo.} Good. Back to Mr. Ginn, you know that I
1243 have been involved in Next Generation 911, the 911 issues,
1244 going back to the '90s, obviously long before our country was
1245 attacked. Do you see the Next Gen 911 being integrated into
1246 what FirstNet is doing?

1247 Mr. {Ginn.} I absolutely do. As I understand, Next Gen
1248 911, you are not only going to be able to take voice, but you
1249 are going to be able to take data--

1250 Ms. {Eshoo.} Um-hum.

1251 Mr. {Ginn.} --photographs, and other capabilities.

1252 Well, guess what, LTE is data-centric. It has a great
1253 capability to transmit data. And so, the way I see it, very
1254 simply, is information coming into the 911 centers can very
1255 easily be sent right to a law enforcement officer at a point
1256 in the district in seconds.

1257 Ms. {Eshoo.} That is--

1258 Mr. {Ginn.} So--

1259 Ms. {Eshoo.} --wonderful. So it will be--

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1260 Mr. {Ginn.} Yeah. I just see us as a real enabler to
1261 adding benefits to Next Generation.

1262 Ms. {Eshoo.} Bravo. Thank you. Yield back.

1263 Mr. {Latta.} [Presiding] The gentlelady from
1264 California yields back, and the Chair recognizes himself for
1265 5 minutes.

1266 And, again, thanks very much for you all being here
1267 today. Really appreciate your testimony, and it is very
1268 informative because, when we had the hearing earlier this
1269 year to find out where we have gone and come from that
1270 timeframe.

1271 And, Mr. Davis, if I could ask you a few questions,
1272 especially coming from the Ohio perspective? Some of the
1273 things that were brought up, especially by the folks that
1274 were here earlier this year from Maryland and Virginia, and
1275 their concerns, just to get your perspective as to where you
1276 think things are, and where they were earlier this year. And
1277 in your testimony, when you talk about the partnership versus
1278 the customer, and particularly on the partnering, you said it
1279 would be stronger engagement on the requirements and the
1280 determination of roles and responsibilities. Do you see that

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1281 things have tightened up, that there is more back and forth
1282 between FirstNet and the states, and that you have a contact
1283 out there that you can get to all the time?

1284 Mr. {Davis.} Yes, we do. We have made significant
1285 progress. FirstNet, in the outreach component, has done an
1286 excellent job. Their message is consistent, and there is a
1287 point of contact for us. As a matter of fact, I believe we
1288 have a meeting on Friday of this week. So the communication
1289 piece is moving forward very well, that component of it.

1290 And the point that we just need to make sure we
1291 understand is that we are making decision at the state level
1292 on a variety of different initiatives that we have going on,
1293 Next Generation 911 being one, and the architecting of that.
1294 If there are things that we can do that will better position
1295 our initiative in Ohio to support FirstNet, and vice-versa,
1296 those are the types of activities that we want to talk
1297 through.

1298 Mr. {Latta.} Well, I think also you mentioned in your
1299 testimony the planning and development, especially in the
1300 State of Ohio. And the 11 years that I served in the General
1301 Assembly, working on the MARCS system at that time, there was

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1302 a lot of discussion, and the cost, et cetera, and also the
1303 LMR. Is that being considered and taken in to account,
1304 especially for the amount of money that Ohio has invested
1305 over all those years, especially, like, in MARCS?

1306 Mr. {Davis.} I think absolutely it is. I think that it
1307 is the mission critical piece that we have. There are 1,300
1308 different disparate systems that we are trying to push
1309 forward to move into MARCS as a shared service model. Very
1310 similar, I would imagine, to some of the things that we are
1311 hearing from FirstNet. And we would like to engage and
1312 partner in that, because we have partnering tiers that we set
1313 up that would be, I think, valuable for FirstNet to
1314 understand how we are operating today.

1315 Mr. {Latta.} And pardon me for interrupting, but you
1316 said you would like to. Are you being taken into those
1317 discussions? Because you said like to. Is that that you are
1318 or aren't getting that information in those discussions?

1319 Mr. {Davis.} I think those things are starting now.
1320 They started about 3 months ago. We didn't get the grant for
1321 the planning side through our controlling board process until
1322 September. So things in the last month have moved quickly.

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1323 In the 6 weeks, things have been significantly better, and
1324 that communication is ramping up.

1325 Mr. {Latta.} Well, not just wanting to pick on you
1326 here, especially in your testimony, you are talking about
1327 especially the volunteer firefighters. And the pushback, as
1328 you say in your testimony, on the \$240 a year to have an
1329 operational radio on our system in Ohio. And I tell you, I
1330 know, with my 14 counties, and the backbone out there is that
1331 volunteer fire department.

1332 And, you know, I go to a lot of chicken barbecues, and
1333 pancake days, and fish fries, and for all of the things that
1334 those folks are doing out there to protect their friends and
1335 neighbors, you know, they just can't take a lot of mandates
1336 out there. So, you know, where are the dollars going to be
1337 coming from for those folks out there across the State of
1338 Ohio, and across the nation, for these volunteers to pay for
1339 this?

1340 Mr. {Davis.} What a great question. It is something we
1341 wrestle with all the time with the MARCS system today, as you
1342 well know. We are looking at everything that we can possibly
1343 do to try to lower those costs as much as possible. A lot of

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1344 that is economy of scale, and the more municipalities, the
1345 more counties that come on board to the radio system will
1346 drive those costs down, and make that at least a little bit
1347 more affordable.

1348 I know that we are looking at different ways to try to
1349 figure out how to crack that volunteer component, because
1350 \$240 a year doesn't sound like much, but when you have 10
1351 volunteers, that is a lot of money. And at some point in
1352 time, those events happen, we need to engage with those
1353 people, and it is critical to the response in that area.

1354 Mr. {Latta.} Okay. Just real briefly in my last 20
1355 seconds, on that economy of scale, when you are looking at
1356 the economy of scale, are you talking about, like, for the
1357 volunteers across the state, or are you looking at particular
1358 areas in the State of Ohio?

1359 Mr. {Davis.} We are looking at the volunteers across
1360 the State of Ohio, but we are also looking at the 1,300
1361 different disparate systems out there as they fold in. And
1362 we have got quite a bit of success here in probably the last
1363 8 months in getting counties, and their radio systems, into
1364 our system and leveraging their assets, and some of the

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1365 assets that we have, to benefit both the county, as well as
1366 the statewide effort that we have going on.

1367 Mr. {Latta.} Thank you. My time has expired, and I
1368 recognize the gentleman from Illinois, Mr. Shimkus, for 5
1369 minutes.

1370 Mr. {Shimkus.} Thank you, Mr. Chairman. Thank you for
1371 being here. I, along with Anna, have been working in the
1372 first responder issues for a long time, and 911, so we are
1373 pleased we are here. Some of us would have liked to have
1374 gotten here a different way, but this is the rules of the
1375 road now. And so, Mr. Davis, compelling testimony, because
1376 your folks are my constituents. I represent 1/3 of the
1377 state.

1378 And so, Mr. Ginn, I hope you really take heed to some of
1379 these concerns in Mr. Davis's opening, and his testimony. I
1380 keep highlighting, and he makes some compelling arguments.
1381 And, you know, we work for those volunteer fire departments,
1382 or those small communities, and we have to get this right.
1383 You have great success in the private sector, and I always
1384 wonder when the private sector experts come to government,
1385 and how they get chewed up in the bureaucracy. I mean, you

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1386 gave a great example of the 4 months in hiring an employee.

1387 I mean, that is government, and that makes it challenging.

1388 But your opening statement was right on. You have got
1389 to get it built, and you have got to get it built right, and
1390 I applaud that focus. I would also add you have got to get
1391 it built within budget. And this business model debate that
1392 is raised by Mr. Davis, not just at your end, but also down
1393 at their end, because I know, in this debate, one of the
1394 underlying things was, don't worry, the government will bring
1395 you more money if you don't get it right, and I don't think
1396 you can assume that.

1397 Mr. {Ginn.} Can I respond?

1398 Mr. {Shimkus.} Yeah. Please.

1399 Mr. {Ginn.} Yeah. You know, I take the \$7 billion as a
1400 personal and organizational challenge. And, if you have a
1401 moment, let me tell you how I think about it, because--

1402 Mr. {Shimkus.} I want to get to LTE too, so, yes, I do
1403 have a moment, but don't--

1404 Mr. {Ginn.} Okay.

1405 Mr. {Shimkus.} --take my 3 minutes.

1406 Mr. {Ginn.} Okay. You know, the first thing you need

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1407 to understand, what is the cost of the network? And you are
1408 going to spend a lot of time trying to drive down the cost of
1409 that network, as I was suggesting about free cell sites in
1410 states in federal buildings.

1411 Mr. {Shimkus.} Right.

1412 Mr. {Ginn.} Because that would dramatically decrease
1413 the cost of providing the network. You have got a couple
1414 other costs. You have got to stand up an organization. We
1415 are doing that now. We are putting people in 10 regional
1416 offices to work with Ohio and other places. And then we will
1417 reach a point--

1418 Mr. {Shimkus.} Let us just go here and say you are
1419 going to do your utmost to have an efficient system that is
1420 going to be cost-effective, and you are going to try to
1421 deploy what has been requested--

1422 Mr. {Ginn.} Yeah. And the point I want to make to you
1423 is simply this, that if we get to the bottom line, and we are
1424 not there, we are going to reiterate the whole process and
1425 look to take out other costs. So--

1426 Mr. {Shimkus.} Right. I just raise that because there
1427 is a concern, not just at your level, at the local level, and

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1428 we have got to get the costs right too, otherwise we are not
1429 going to be where we want to be.

1430 You did talk about LTE, and the great technology, and
1431 the data stuff, but mission critical voice is also an
1432 important aspect of this debate. Can you explain FirstNet,
1433 this is also for Mr. Orr, on, obviously, the voice aspect of
1434 this, that is part of the application with NIST, and where
1435 are at with that?

1436 Mr. {Orr.} So, just to be clear, NPSTC defined mission
1437 critical voice, and that is a group of public safety
1438 associations, as the ability to talk directly from one device
1439 to another, so direct mode, push-to-talk, like public safety
1440 uses now with their radios, full duplex voices, which is how
1441 we talk on our cell phones right now, where you can talk over
1442 each other, group call, so that you talk one to many, talker
1443 identification, like caller ID, emergency alerting, so I hit
1444 a button, and I get automatic access to the network if I am
1445 in an emergency situation, and audio quality, so that you can
1446 actually hear me in difficult environments, like firefighters
1447 and police often work in.

1448 The most challenging aspects for mission critical voice

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1449 right now are really the top three, which are dealing with
1450 push-to-talk capability, group communications, and direct
1451 mode, device-to-device, because those aren't issues that are
1452 being dealt with by the commercial community right now. So
1453 that is what we are working in LTE, and that is where we have
1454 had, actually, very significant progress on the LTE
1455 standards. And we are working closely with the other
1456 countries around the world that are also deploying their own
1457 public safety LTE networks, because every single one of them
1458 needs this mission critical voice capability.

1459 So our expectation, at least from a PSCR perspective, is
1460 within the next 18 to 24 months, we would like to start
1461 seeing prototypes in our laboratories that display this
1462 capability, that we can at least start assessing, testing,
1463 and, as Chairman Ginn said, reiterating on the standards to
1464 ensure that these products someday actually meet the
1465 capabilities of the current land mobile radio systems.

1466 Mr. {Shimkus.} Great, and I will just end on this. The
1467 Seattle Times, of all papers, wrote an article about the
1468 tornadoes that went through my district, and a lot of the
1469 Midwest, Ohio and Indiana, and how people's lives were saved

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1470 through the communication to their cell phones and the like.
1471 Obviously, the people didn't have access to that, may not
1472 have got as clear a warning as they could have, but we are
1473 getting there. But there is concerns about the top down, the
1474 business model, and I would hope you work with our local
1475 providers, because they are the key to this, making it work.

1476 Mr. {Ginn.} If you take nothing else away from here,
1477 you need to understand that I understand that if you don't
1478 satisfy your customers, you don't have a business.

1479 Mr. {Shimkus.} Amen. Yield back.

1480 Mr. {Latta.} Well, thank you very much. The gentleman
1481 yields back the balance of his time. And, for Chairman
1482 Walden, and also for Ranking Member Eshoo, we want to thank
1483 you again for your testimony today, and your patience when we
1484 had to go to vote. We greatly appreciate that.

1485 And, if there is nothing further come before the
1486 committee, the subcommittee will stand adjourned.

1487 [Whereupon, at 1:07 p.m., the Subcommittee was
1488 adjourned.]