

EXHIBIT 18

Pre-filed Testimony – Bart Lovett

**BEFORE THE
ILLINOIS COMMERCE COMMISSION**

IN THE MATTER OF)
)
COUNTIES OF SOUTHERN ILLINOIS (CSI),)
ALEXANDER COUNTY EMERGENCY)
TELEPHONE SYSTEM BOARD, CLAY COUNTY)
EMERGENCY TELEPHONE SYSTEM BOARD,)
GALLATIN COUNTY EMERGENCY)
TELEPHONE SYSTEM BOARD, JACKSON)
COUNTY EMERGENCY TELEPHONE)
SYSTEM BOARD, JOHNSON COUNTY)
EMERGENCY TELEPHONE SYSTEM BOARD,)
MARION COUNTY EMERGENCY TELEPHONE)
SYSTEM BOARD, MASSAC COUNTY)
EMERGENCY TELEPHONE SYSTEM BOARD,)
PERRY COUNTY EMERGENCY TELEPHONE)
SYSTEM BOARD, PULASKI COUNTY)
EMERGENCY TELEPHONE SYSTEM BOARD,)
RICHLAND COUNTY EMERGENCY)
TELEPHONE SYSTEM BOARD, SALINE)
COUNTY EMERGENCY TELEPHONE SYSTEM)
BOARD, UNION COUNTY EMERGENCY)
TELEPHONE SYSTEM BOARD, WABASH)
COUNTY EMERGENCY TELEPHONE SYSTEM)
BOARD, WHITE COUNTY EMERGENCY)
TELEPHONE SYSTEM BOARD, WILLIAMSON)
COUNTY EMERGENCY TELEPHONE SYSTEM)
BOARD, AND THE CITY OF MARION)
EMERGENCY TELEPHONE SYSTEM BOARD)
)
AN APPLICATION FOR A CERTIFICATE TO)
OPERATE A NEXT GENERATION 911)
TELEPHONE SYSTEM)

DOCKET NO. 12-0094

PREFILED TESTIMONY OF J. BART LOVETT

1 Q. Please state your name and business address.

2 A. My name is J. Bart Lovett. My business address is 14 Clif-Side Dr, St. Louis,
3 MO 63122.

4 **Q. By whom are you employed and in what capacity?**

5 A. I am the Project Manager for NG-911, Inc. My consulting company OnPoint
6 LLC provides services to NG-911, Inc.

7 **Q. Please give a brief description of your job responsibilities and your**
8 **background and experience.**

9 A. For the past nine years, I have been the Project Manager for Ramsey Emergency
10 Services and its successor corporation NG-911, Inc. I am responsible for the
11 Project Management of the CSI project as well as some marketing, regulatory and
12 customer service issues. I solicit client input, formulate strategy, implement
13 tactics, identify issues, seek resolution, delegate and follow up, among other
14 things. Prior to forming OnPoint L.L.C in 1997, I worked for Southwestern Bell
15 Telephone Company (SWB) for 22 years in various management positions,
16 primarily in the areas of marketing, finance and network. I hold a Bachelor of
17 Arts degree from Kansas University (1976) and a Masters of Business
18 Administration from Washington University (1993). My further experience and
19 qualifications are listed in the resume attached to my testimony as Lovett
20 Appendix (A).

21 **Q. What is the purpose of your testimony?**

22 A. The purpose of my testimony is to provide evidence regarding the viability of
23 Next Generation 9-1-1 system proposed for deployment in CSI; and to address the

24 practical aspects of planning, organizing, leading and controlling such a cutting
25 edge project. The Pilot Project is designed to accommodate requirements of
26 current laws and regulatory rules designed for the old technology that is in the
27 process of being phased out and replaced with the technology and processes being
28 deployed in the Pilot Project. I will also discuss the technical aspects as they
29 relate to the improvement of 9-1-1 service and discuss the managerial aspects of
30 the CSI project to provide 9-1-1 services.

31 **Q. What is NG9-1-1?**

32 A. Next Generation 9-1-1 supports IP-based communication enabling the public to
33 transmit emergency-related text messages, images, video, and data to the 9-1-1
34 center in addition to dialing 9-1-1 from a phone. NG9-1-1 is a faultless, end-to-
35 end IP-based communication of emergency-related voice, text, data, photos, and
36 video between the public and public safety answering points (PSAPs).

37 **Q. How is Next Generation 9-1-1 so different and why is it better than the E9-1-1**
38 **service provided by the Incumbent Telco's?**

39 A. There are so many ways it is better, that I will try to name just a few of the
40 advantages. It provides redundancy and dramatically reduces the possibility of
41 failure, because there is no single point of failure in the network that prevents
42 emergency calls from being processed. Since it is IP and Location based, that
43 means the system can receive emergency calls that the existing (legacy) system
44 can't handle today, such as VoIP (a better term is Real Time Communications)
45 from companies such as Vonage and Skype; this can also include OnStar and
46 similar offerings. It will allow for texting when the standards are finalized. I

47 think the public has the expectation today that they can text to 9-1-1. It will
48 provide much more flexibility in the routing of calls in case of disaster. If a PSAP
49 has to shut down, the calls will still be answered because of the advanced routing
50 and alternate routing the system can do that PSTN based 9-1-1 cannot perform.
51 With the ability for carriers to connect using the Session Initiated Protocol or
52 ‘SIP’ which is IP based, it will allow additional data to be delivered with the call
53 which will lead to more accurate location of wireless callers and other mobile
54 devices based on Geospatial routing. With the system converting the voice call
55 into packets of data, the system can process and handle emergency calls more
56 flexibly and efficiently.

57 **Q. What are the practical benefits for NG9-1-1?**

58 A. The Practical Benefits of NG9-1-1 include increased public access to emergency
59 services to everyone no matter what technology they are using. A good example
60 of this is the Deaf and Hard of Hearing communities. Depending on the
61 technology being used, they are not able to access 9-1-1 directly. The only way
62 for them to do so is to use a TDD/TTY device. Those devices are antiquated and
63 the legacy 9-1-1 system is not capable of receiving text messages or other forms
64 of communication. NG9-1-1 multi-media capabilities include texting, data,
65 photos, and videos as well as expanded accessibility to persons with disabilities
66 and will give all citizens of Illinois more options and -more importantly-
67 opportunities in contacting 9-1-1 in emergencies, especially when a voice call is
68 difficult or dangerous. It also provides superior information for first responders:
69 through PSAPs receiving text, data, photos, and videos, 9-1-1 dispatchers can

70 assess emergencies more quickly and respond more effectively with the necessary
71 equipment and knowledge of the environment. It will transfer 9-1-1 calls between
72 geographically dispersed PSAPs and from PSAP to a remote NG9-1-1 public
73 safety agency if necessary. Of course, the Ten Digit Transfer will still be capable
74 as is standard operating procedure today. Lastly, the biggest practical benefit is
75 that it will be redundant, resilient and reliable, providing the highest level of up
76 time.

77 **Q. What are the limits of NG9-1-1?**

78 A. NG9-1-1 has significant up-front costs. It is IP from end to end, making it costly
79 to upgrade all the. Once the call comes into the system, it's handled by the maps,
80 etc. and that gets expensive. However, this cost barrier can be lifted by allowing
81 consortiums like CSI to band together to operate these operations, reducing IP
82 costs through sharing of SS7's.

83 SS7 is a Public Switched Telephone Network (PSTN) based call routing. SS7
84 improves call set up time because it is an overlay network that allows out of band
85 signaling thus improving call set-up time. It is very expensive and is a legacy of
86 the PSTN. Access Carriers currently prefer this method as that is what they are
87 working with today, however it puts the cost burden on Public Safety to adapt to
88 older technology such as SS7. Alternatively, with the continued accelerated
89 growth in VoIP, technologies carriers and ISPs are now offering clients Session
90 Initiated Protocol (SIP) Trunks at a lower cost, alternative to the traditional PSTN
91 interconnect. If a SIP Trunk is shared, CSI can further delude the costs of NG9-1-
92 1, while adding more benefits.

93 Another limitation of NG9-1-1 is non-existent or limited legislation and
94 regulation. With how fast technology changes, legislators and regulators have a
95 hard time keeping up with the evolution of technology.

96 **Q. What is the vision for the NG9-1-1 System?**

97 A. Generally the Federal Government, specifically the US Department of
98 Transportation, views the NG9-1-1 System as an evolutionary transition to enable
99 the general public to make a 9-1-1 call from any wired, wireless, or Internet
100 Protocol (IP)-based device, and allow the emergency services community to take
101 advantage of advanced call delivery and other functions through IP network
102 technologies based on open standards. By enabling the general public to access 9-
103 1-1 services through virtually any communications device, the NG9-1-1 System
104 provides a more direct ability to request help or share critical data with emergency
105 services provider from any location. In addition, call takers at the PSAP's will be
106 able to transfer 9-1-1 calls to another PSAP and forward the location and other
107 critical data, such as text messages, images, video, with the call.

108 **Q. What is the purpose of implementing the NG9-1-1 System?**

109 A. First, NG9-1-1 will provide a more reliable 9-1-1 System to meet the public's
110 expectations as IP-based architecture provides more flexibility and resiliency than
111 the legacy circuit-switched 911 system.

112 Second, the NG9-1-1 System is capable of allowing the general public to make 9-
113 1-1 calls along with sending text, image, and video; capabilities that are
114 increasingly common in communications devices and vehicles however are more
115 than the current PSTN can handle. There is a growing market penetration of both

116 cellular and Voiceover Internet Protocol (VoIP) or Real Time telephony that has
117 pointed out the limitations of the current 9-1-1 infrastructure. These mobility type
118 services and the increasing IP convergence have put the 9-1-1 systems, and
119 specifically CSI, in a unique position. The 9-1-1 systems are based on decades-
120 old technology and cannot handle common in personal communications such as
121 text, images, and video that. The current system can accept delivery of landline
122 voice, Teletypewriter Device for the Deaf (TTY/TDD) devices for the deaf,
123 cellular voice, and VoIP. And VoIP is there by FCC order.

124 A third purpose of implementing Next Generation communications is to more
125 efficiently enable and advance with the deployment of future technologies. The
126 underlying technology in NENA IP Standards-based Next Generation systems
127 will more easily adapt to engineering and system requirements when new
128 technologies and devices are introduced.

129 Fourthly, as the NG9-1-1 system can more easily adapt to changes in technology,
130 it is more cost effective to upgrade and maintain as it does not require a “forklift
131 upgrade,” or in other words a complete replacement of all the system parts, to
132 bring it up to date.

133 **Q. What are the major goals and objectives of the NG9-1-1 System?**

134 A. The primary goal of the NG9-1-1 System is to save lives, health, and property by
135 improving emergency services access and response in Illinois. The NG9-1-1
136 System objectives that will lead to this goal include enabling 9-1-1 calls from any
137 networked communication device, providing geographically-independent call
138 access, transfer, and backup among PSAPs and between PSAPs, and other

139 authorized emergency organizations; and to deploy a non-proprietary and secure
140 architecture to implement the Emergency Services IP Network (ESInet) based on
141 standards and interoperability across Illinois. Lastly to maximize emergency
142 services capital, operating, and maintenance cost savings.

143 **Q. What does the NG9-1-1 System architecture look like?**

144 A. The technical documents that are part of this filling do an outstanding job of in
145 detailing what the architecture physically looks like for the CSI project. This
146 design is based on sound design principles and the deep technical experience of
147 the Design Team. It is a network, or web – like in design which eliminates the
148 possibility of a single point of failure. It has dual data centers within the network
149 to provide redundancy and resiliency which when taken all together makes it
150 more reliable.

151 **Q. Do you believe NG9-1-1 will save money over time or is it more about
152 improving service and capabilities?**

153 A. The Public Safety and Homeland Security Bureau presented a cost study on
154 NG911 network connectivity costs, entitled, “A Basis for Public Funding
155 Essential to Bringing a Nationwide Next Generation 911 Network to America's
156 Communications Users and First Responders.” The study offers two models for
157 NG911 deployment: a baseline model and a cost-effective model that assumes
158 cost savings from a reduction in the total number of 911 call centers nationwide
159 and a greater percentage of call centers sharing NG911 infrastructure as opposed
160 to operating their own dedicated systems. In other words, NG9-1-1 will save us
161 money in the long run by being able to share services and costs across multiple

162 PSAP's. Furthermore, the Bureau staff analysis determined that NG911, because
163 of its ability to leverage commercial off-the-shelf technology, has the potential to
164 be more cost-effective to operate and upgrade than the legacy 911 system.¹

165 Even though NG9-1-1 will save money in the long run, the more important point
166 is that it will improve public safety's service and capabilities by using this new
167 technology.

168 **Q. What is the biggest hurdle to NG9-1-1 reaching critical mass?**

169 A. The biggest hurdle is for the overall understanding of what NG9-1-1 is. To most
170 folks out there it's a concept that is still years down the road. I can't tell you how
171 many times I've heard PSAP Directors say that they'll be retired before NG9-1-1
172 becomes a reality. NG9-1-1 is a reality, and has been proved in lab testing at the
173 Illinois Institute of Technology. With the commission's approval for CSI to be
174 the pilot, we can demonstrate it with live traffic in the counties of southern
175 Illinois.

176 **Q. What needs to happen for Next Generation 9-1-1 to be deployed state-wide
177 and in the United States as a whole?**

178 A. In order for NG9-1-1 to be deployed state-wide and in the US as a whole, there
179 needs to be a shared set of regulations that provide the ability for unique design of
180 each NG9-1-1 project, as there is no one solution for every project. Deployment
181 of NG9-1-1 will also depend on public/consumer knowledge and awareness,
182 clarification of consumer expectations, and demand.

¹ United States Federal Communications Commission. Public Safety and Homeland Security Bureau. *Next Generation 911 Cost Study: A Basis for Public Funding Essential to Bringing a Nationwide Next Generation 911 Network to America's Communications Users and First Responders*. Washington, DC: 2011. <http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-309744A1.pdf>.

183 **Q. When do you realistically think we will have a fully implemented National**
184 **NG9-1-1?**

185 A. Depending upon the factors stated above, as well as FCC regulation, I am
186 hopeful that NG9-1-1 will be fully deployed within the next 10 years, but also
187 consider that there are still places throughout the country that still do not have E9-
188 1-1.

189 **Q. What is the role of NG-911, Inc. in the project?**

190 A. NG-911, Inc. is an integrator. We take the best components required and put
191 them together to meet the needs of our customers. The integrator needs to have
192 experience in all sides of the business, the Telco, regulatory and the PSAP side.
193 NG-911, Inc. uniquely brings this type of expertise to the project. We have
194 engaged a design team that has Telco and IP expertise as well.

195 **Q. Why was NG-911, Inc. the best vendor choice for deploying NG9-1-1?**

196 A. NG-911, Inc. was selected as the integrator (prime contractor) for their experience
197 in IP and PSTN 9-1-1 technology. NG-911, Inc. has assembled the best
198 components of Next Generation 9-1-1 systems as an integrated IP NENA
199 standards-based standard solution. We not only provide the equipment, but we are
200 a full service provider. We stick around until the job is complete, and even
201 afterwards. We provide step-by-step assistance in the transition as we fully
202 understand the process; we realize there is not a simple solution that will work for
203 each dispatch center. Further, NG-911, Inc. provides what we like to call a
204 'hardware' solution, versus our competitors' 'software' solution. Our hardware

205 solution is a more secure approach. Many providers have solutions for right now,
206 which will need to be replaced in the future.

207 **Q. Please describe CSI's Next Generation 9-1-1 system.**

208 A. It is simply a network comprised of point to point circuits; both fiber and copper,
209 depending on the PSAP, that utilizes two hosted sites, that we call data centers
210 that are mated pairs of servers. This is in case there is some form of hardware or
211 network failure; the whole system won't be lost. That can happen today, with the
212 Telco PSTN design. So the idea is use the Internet Protocol or IP infrastructure to
213 make the system significantly more reliable so that if we lose a data center or
214 isolate a PSAP, the 9-1-1 calls will still be answered and help rendered.

215 **Q. Is this more of a telephone system or a computer system?**

216 A. It is more a computer system that handles voice and much more. The hardware
217 with NG9-1-1 are computer servers whose components can be easily swapped out
218 inexpensively. Being IP-based makes it more of a computer than a telephone
219 system. In addition it uses broadband services to communicate inside and outside
220 the ESInet.

221 **Q. What is diversity in the network and why is that important?**

222 A. Basically when the CSI project team talks about diversity, we are referring to
223 more than one path for a 9-1-1 call to take in case of some type of failure, be it
224 equipment or physical network. We believe 9-1-1 traffic is the most important
225 traffic on the network and should have special consideration given the nature of
226 calls to Public Safety.

227 **Q. Is the ESInet for CSI a diverse network?**

228 A. Yes, there are mated (mirrored) Data Centers in Murphysboro and Harrisburg that
229 provide diversity in case of some catastrophic failure or event. The network has
230 diverse paths to the PSAP's in case of failures, as mentioned previously. There
231 are two (2) fiber drops to each physical PSAP's. This is far and above the
232 diversity provided by the existing 9-1-1 providers.

233 **Q. Is the PSTN a diverse network for 9-1-1?**

234 A. Not for 9-1-1 purposes in southern Illinois. Our conversations with the access
235 carriers revealed that there a single set of trunks from each end office and there is
236 similarly a single set of trunks that go from the one and only Selective Router to
237 the PSAP. This creates a single point of failure across the entire network.

238 **Q. What diversity does exist in the PSTN?**

239 A. Not much if any in Southern Illinois. Based on my work with the project and
240 what we discovered by meeting with the carriers, it appears there is little to no
241 diversity in their network in this part of Illinois.

242 **Q. Did the project team examine/consider other alternatives for network
243 diversity?**

244 A. Yes, we have looked at a few alternatives; the various PSTN providers could not
245 provide the diversity we need so we examined Satellite backup systems. This is a
246 good alternative but should be done at a later time once the ESInet is fully
247 operational.

248 **Q. The issue of who will serve as the "Carrier of Last Resort" is a common
249 theme in PSTN regulation. How does that fit in with a Next Generation 9-1-1
250 system?**

251 A. In the context of Next Generation 9-1-1, the “Carrier of Last Resort” should more
252 properly be called the “Provider of Next Resort.” This technology allows for a
253 succession of companies that can maintain all or parts of it, as required by the
254 ETSBs. This technology has been deployed in Enterprise Business for years and
255 it is really nothing cutting edge outside the 9-1-1 community. The term Carrier of
256 Last Resort doesn’t really apply to this technology, it applies to the PSTN where
257 switches that required a building to house them and cost millions of dollars. This
258 technology can be managed by technical individuals that understand IP
259 infrastructure.

260 **Q. Are there other projects like this in Illinois or the US?**

261 A. No. This project is the first of its kind. There are other projects that utilize the
262 same technology, concepts and equipment and are called Next Generation, but
263 they are only slices of the total process and do not have all the functional elements
264 necessary for true NG9-1-1. The other projects are typically deployed statewide
265 and administered by a state organization. Additionally, they are limited in the
266 scope of the calls they take. Most are statewide wireless projects that eventually
267 will be morphed into a larger NG umbrella but at present, they have limited scope.
268 The CSI project is the very first to pull all 9-1-1 calls into the ESInet and then
269 perform the Next Generation functions, such as location validation and location
270 routing.

271 **Q. What needs to happen for Next Generation 9-1-1 to be deployed in Illinois?**

272 A. The Commission can help with the deployment of Next Generation 9-1-1 by using
273 its regulatory powers to assist in resolving various roadblocks. First, the

274 Commission can order the cooperation of all Carriers to provide information and
275 dedicate sufficient resources to assist with the transition.

276 The Commission should require all facility based carriers to provide diverse
277 connections to public safety where the call volume, population, customer base
278 require multiple trunks from each central office to the two diverse data centers
279 being deployed by CSI.

280 Because SS7 deployment is expensive and requires several counties to band
281 together to be able to even remotely afford this service, the Commission should
282 order all Carriers to deploy SIP trunking within thirty-six (36) months.

283 The Commission should also order aggregation of the 9-1-1 trunks to fill DS1
284 trunks to terminate 9-1-1 traffic at the data center sites and offer the service at
285 cost because it is a Public Safety service for the customers of the access carriers.
286 Access carriers should not subject Public Safety to the same terms as commercial,
287 for profit entities in their pricing. These circuits should also be given priority in
288 repair, at no charge, as a public interest to the citizens of Illinois and Law
289 Enforcement.

290 The Commission should facilitate the testing of the database and cooperatively
291 testing the system before cutting live traffic. The commission should compel the
292 incumbent 9-1-1 provider to provide the database and updates, as well as
293 coordination to make the transition smooth and the ALI database accurate and the
294 network diverse, reliable, secure, and redundant.

295 Also the Commission should require the Access Carrier's timely participation in
296 the project. CSI is asking the Commission to compel the Carriers to cooperatively

297 test and coordinate the conversion of live traffic in a cost effective manner for the
298 9-1-1 Agency.

299 **Q. Why should the commission expedite this hearing and approve this project**
300 **immediately?**

301 A. This is an opportunity for Illinois to once again be a leader in 9-1-1. Certification
302 of CSI will enhance 9-1-1 communications in Illinois and will provide the citizens
303 of Illinois with state of the art public safety tools. This project encourages
304 technological innovation, drives costs down, and is an efficient use of resources.
305 Increased 9-1-1 options for the ETSB's will benefit citizens and consumers by
306 providing a wide variety of increased 9-1-1 services.

307 **Q. Does this conclude your testimony?**

308 A. Yes.

APPENDIX A

J. Bart Lovett
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Glendale, Mo 63122

Home 314.918.0899

Work 314.602.3399

On Point L.L.C.

Managing Partner

2002 - Present

Consulting firm specializes in business assurance. The firm's expertise is in Telecom, and Utility consulting. We work for government and business reducing cost, auditing, providing non-biased solutions and comprehensive project management.

St. Louis Community College

Adjunct Instructor Management/Marketing/Intro to Business/

2005 - Present

Brought a fresh, real world approach to the business courses. I constantly updated the content of the courses to bring topics that interest students and illustrate the material that is being taught. Received good to excellent feedback from students and superiors. Currently teaching at Wildwood campus.

BTC Communications, Inc.

Chief Operating Officer

1997 - 2002

Served from inception of the company until its sale as the COO. Company was a Competitive Local Exchange Provider of telephone and data service. Company operated in six (6) states and served both residence and business customers. I was responsible for all operations of the company, with the exception of legal services.

SBC Communications, Inc.

Marketing Director- Product Management

1976 - 1997

End to end marketing responsibility for product management for consumer segment of regional long distance. Managed product team, developed product plan, planned and implemented promotions, coordinated advertising campaigns, created product bundles. Project Manager responsible for product delivery and project cost. Developed project/implementation plans, budgets, financial analysis, organized, staffed and led development teams. Extensive regulatory interface. Sponsored in the Executive MBA program at Washington University by SBC Corp. Managed/Supervised programming groups, supervising all facets of business analysis, system design, code development and testing. Worked with senior management to develop information business strategy. Programmer/Analyst Information Systems. Installation service operations. Supervised work force operations. Operations manager responsible for repair service and associated operations. Supervised customer service bureau, testing and dispatch operations. Supervised installation, repair and central office maintenance crews.

EDUCATION:

B.A., University of Kansas 1976
MBA, Washington University 1993