

EXHIBIT 14

Pre-filed Testimony – Ken Smith

**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 KENNETH E. SMITH

2 Q. Please state your name and business address.

3 A. My name is Kenneth E. Smith of 300 N. Park Ave. Herrin, Illinois 62948

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

5 A. I am employed as 9-1-1 Coordinator for the Williamson County Emergency
6 Telephone System Board and Chairman of Counties of Southern Illinois, the not-
7 for-profit association of ETSBs seeking to implement a regional next-generation
8 9-1-1 system.

9 Q. Please give a brief description of your job responsibilities and your background
10 and experience.

11 A. I have been 9-1-1 Coordinator in Williamson County since May of 1994. I have a
12 Bachelor of Science degree in Communications, am a certified Emergency
13 Number Professional, and have been Region 7 Vice President for the Illinois
14 Chapter of the National Emergency Number Association for the past decade. I
15 directed the creation of enhanced 9-1-1 in my county. We were among the first in
16 the state to have structure mapping capability on 9-1-1 calls, among the first to
17 implement phase one then phase two wireless as well as one of the first to take
18 VoIP 9-1-1 and On-Star calls on 9-1-1 trunks. For the past five years I have
19 served as chairman of CSI co-leading the effort to implement what will be the
20 first of its kind, fully-functional, standards-based, regional next-generation 9-1-1
21 system. I have written articles on regional cooperation in 9-1-1 for national
22 publication and made presentations in state and national forums on the advantages
23 of regional cooperation for NG-9-1-1.

24 Q. What is the purpose of your testimony?

25 A. The purpose of my testimony is to provide evidence regarding the petition of the
26 Counties of Southern Illinois for a pilot program Next-Generation 9-1-1 system,
27 specifically the background and purpose of our association.

28 Q. Can you describe the Counties of Southern Illinois and how CSI was formed?

29 A. CSI was formed when sixteen (16) Emergency Telephone System Boards joined
30 together under the power of the Illinois Intergovernmental Cooperation Act for
31 the purpose of upgrading and improving emergency communications in our
32 region. The 9-1-1 Coordinators in Southern Illinois had been cooperating for
33 about 15 years on a wide range of issues. We originally banded together to
34 oppose a proposed GTE tariff increase. This led to sharing information such
35 as but not limited to, evaluation of hardware and software vendors, request for
36 proposal language, grant opportunities, and sample ordinances on road signs,
37 address marking requirements. We helped those implementing new systems by
38 sharing success stories and warning of potential complications. We shared
39 opinions on various policy matters, addressing issues and the best way to add new
40 technologies such as phase two wireless service. When Next Generation 9-1-1
41 was introduced, we recognized certain harsh realities. First, our customers were
42 going to be demanding NG services in the next five years and we needed to be
43 ready. When the ADA requires that the deaf be able to text 9-1-1, we want to be
44 prepared. Second, our Local Exchange Carriers (LECs) had no plans to offer NG
45 services in the near future. Instead they planned to wait until the National
46 Emergency Number Association completed development of all standards. Both
47 AT&T and Verizon stated this during our early meetings with the ICC staff about

48 this project on November 16 and December 9 of 2009. Third, the absence of a
49 statewide 9-1-1 program in Illinois meant there would be no effort toward a
50 statewide NG system. Fourth, there was no way that each of our ETSBs could
51 afford to do NG on our own. It would be difficult for even a moderate population
52 county system to afford \$250,000 per PSAP and impossible for a small rural
53 single PSAP system such as many of those in our region. Fifth, we recognized
54 that the ONLY way to proceed would be regionally, pooling our resources to buy
55 two sets of equipment that could be shared through an ESInet. That would
56 provide redundancy and better backup capabilities for all of us. Sixth, we hoped
57 that as first implementers we might qualify for federal grant money. Without
58 funds to hire consultants, we divided the work for a needed feasibility study
59 among our members, working as committees. We received grant-funded help
60 from the Department of Justice on how to organize our efforts which led to
61 creation of a Charter, by-laws and inter-governmental agreements. We elected an
62 executive board of Ken Smith as Chairman, Patrick Lustig as Project Manager,
63 Tracy Felty as Treasurer, and Jana Fear as Secretary. We formed a 501 (c) 3 not-
64 for profit organization and had all of our Emergency Telephone System Boards
65 sign agreements to participate in the project. We educated our stakeholders on
66 NG9-1-1 and continued hosting vendor presentations.

67 Q. How did CSI become the NG pilot program in Illinois?

68 A. The formation of CSI was recognized by the National Emergency Number
69 Association and its NG9-1-1 Partners Program as the model for how to implement
70 the technology in a rural setting. They identified our project as a national pilot

71 and offered free technical advice. The Illinois Institute of Technology, a national
72 test-lab for NG9-1-1, offered to help with our network design and testing plans.
73 Federal funding was also obtained that validated the project. Congressman Jerry
74 Costello obtained a \$600,000 Department of Justice COPS grant for our project.
75 The Delta Regional Authority provided a grant of \$100,000 for technology
76 hardware. The Federal Government (NTIA) announced that it sought to spur
77 development of NG9-1-1 technology through its Broadband Technology
78 Opportunity Program grants, so we partnered with Clearwave Communications, a
79 local CLEC, on their application. They were awarded a combined state and
80 federal grant of \$43 million dollars to provide broadband to anchor institutions in
81 our region. The list of anchor institutions (i.e.hospitals, schools, libraries etc.) are
82 served by our PSAPs. That fiber will provide the backbone for our ESInet. The
83 Clearwave grant also included 1.2 million dollars for our 9-1-1 project. The 16
84 member ETSBs who agreed to provide local matching funds are the city of
85 Marion and the counties of Williamson, Jackson, Massac, Saline, Union, Perry,
86 Johnson, White, Richland, Wabash, Clay, Marion, Pulaski, Gallatin and
87 Alexander. These ETSBs also agreed to share the cost of a shared geographic
88 information system project through Southern Illinois University –Carbondale. CSI
89 member William Barrett took on the project as his Master’s thesis, using students
90 to format and combine map data for the entire region. A map of the participating
91 counties showing the proposed ESInet is included as Exhibit (1). A map of the 21
92 PSAP locations is included as Exhibit (1). The 21 PSAPs are the Sheriffs’
93 Offices’ of Saline, Jackson, Perry, Williamson, Johnson, Union, Pulaski, White,

94 Massac, Wabash and Richland Counties and the Police Departments of the cities
95 of Marion, Herrin, Carbondale, Flora, DuQuoin, Centralia, Salem, Metropolis,
96 Murphysboro, and Southern Illinois University at Carbondale. The request for
97 proposal process took more than a year as CSI sought to find the most cost-
98 effective yet standards-compliant solutions. We also recognized that the 9-1-1
99 statutes in Illinois were written when all 9-1-1 calls were legacy landline calls and
100 therefore the language prohibited our project. We also recognized that there
101 would not be sufficient time to change those laws before our project was ready.
102 We supported the creation of legislation that set up a method for allowing a state
103 pilot project. In November of 2010 we chose NG-911, Inc. as the vendor. They
104 had assembled a team of experts that had participated in the NENA ICE (industry
105 collaboration events) program during which the various components of NG
106 technology had been tested. Their partnerships included Solacom for the NG
107 ECRF (emergency call routing function) solution, Bullberry for geospatial routing
108 and mapping services, HigherGround for the recording solution, and
109 DATAmaster for the database management component. During the contract
110 negotiation phase they added Acme Packet for session border controllers and
111 Assure 911 for the network design.

112 Q. Have all members of CSI agreed to and support the filing of the petition in this
113 case?

114 A. Yes, all members have passed a resolution authorizing a signed petition on behalf
115 of each ETSB, included as Resolutions in this filing.

116 Q. Is the CSI petition supported by law?

117 A. Yes, Public Act 096-1443.

118 Q. Does CSI plan to become a 9-1-1 System Service Provider?

119 A. During the pilot program, CSI will be seeking forbearance from the Commission
120 through a separate formal request. The 16 member ETSBs in CSI will seek SSP
121 designation during the pilot program. Our vendor, NG-911, Inc. will also be
122 seeking approval as an SSP. If the ICC does not allow the CSI ETSBs to become
123 the SSP, we will contract with either NG-911, Inc. or one of the existing SSPs.
124 Frontier presently does not provide those services.

125 Q. How will the Next Generation 9-1-1 system benefit the public safety personnel
126 and residents of the region served by CSI?

127 A. Southern Illinois is located in a high risk zone for natural disasters. It is part of
128 three earthquake fault zones, is in tornado alley, is subject to flooding from both
129 the Ohio and Mississippi Rivers, and has suffered severe ice storms and an inland
130 hurricane termed a derecho in recent years. The region is criss-crossed by
131 railroads and interstate highways with trains and trucks carrying hazardous
132 materials. Many of the counties in the region have only one PSAP and some of
133 those PSAPs have only one dispatcher working at any given time. Unlike an
134 urban or suburban dispatch center with 20 or more positions, a rural single PSAP
135 system can be overwhelmed quickly in a major emergency. Systems have back-
136 up PSAPs but in some cases, that backup also only has one dispatcher working.
137 A single LEC selective router failure can shut down 9-1-1 for the entire region.
138 On May 8, 2009, a derecho with hurricane force winds hit three of our counties
139 and the burst of call volume knocked out Frontier's selective router. The region

140 was left without 9-1-1 service for hours. Neighboring counties had dispatchers
141 available but there was no way for them to assist. The CSI system will have dual
142 redundant data centers located 56 miles apart. Each of the PSAPs will be
143 connected to both data centers so that a single center failure does not result in a
144 loss of service. The PSAPs will be connected through the Emergency Services IP
145 Network (ESInet) allowing over-flow calls to be answered at adjacent PSAPs that
146 are not directly affected by the disaster. Callers will talk to trained dispatchers
147 instead of hearing a busy signal or an endless ring tone.

148 Q. What are the long-term goals of the project?

149 A. As new technology is developed, our system and ESInet will provide access to all
150 of the enhancements that Next Generation technology can provide. The system
151 will eventually be able to receive text and video 9-1-1 calls from the deaf, crash
152 notification data from On-Star type services, pictures of crash scenes or license
153 plates of fleeing criminals, and videos of robberies or fires in progress. The
154 potential long-term benefits of being able to share all this information with
155 responders and improve radio inter-operability are of great benefit to our citizens.
156 The ability to provide next generation 9-1-1 services can be a huge economic
157 development draw for a region of high unemployment and poverty rates.
158 Eventually, the ESInet can be used for radio traffic, allowing departments on
159 different frequencies to communicate in a disaster.

160 Q. Does the federal government share those long term goals?

161 A. Yes. The Department of Justice recognized the value of our project in approving a
162 \$600,000 grant for equipment. The NTIA provided funding to Clearwave for the

163 buildout of a broadband network for our project. The FCC has made NG9-1-1 a
164 point of emphasis. Their position is included is included in the narrative. The
165 U.S. Department of Transportation has been pushing for NG9-1-1 for years.

166 Q. Can you summarize their position?

167 A. Yes. The Department of Transportation (USDOT) Next Generation 9-1-1 System
168 Initiative (NG9-1-1) is establishing the foundation for an evolutionary transition
169 to enable the general public to make a 9-1-1 “call” from any wired, wireless, or
170 Internet Protocol (IP) based device, and to allow the emergency services
171 community to take advantage of Enhanced 9-1-1 (E9-1-1) call delivery and other
172 functions through new internetworking technologies based on open standards.
173 The NG9-1-1 Initiative is one of the first federally funded studies to
174 comprehensively define and document a future vision for 9-1-1 systems.
175 Advanced regions and localities should also get involved in collaborative
176 planning efforts. Leadership by example can include making resources, work
177 products, and lessons learned publicly available. When others have the
178 opportunity to see your success and avoid missteps, they benefit from your
179 contribution, and the collaborative nationwide 9-1-1 community that NG9-1-1
180 requires to succeed will continue to grow. As relationships are established,
181 opportunities for sharing resources may also lead to significant cost savings for
182 the sixteen ETSBs. The goals of these efforts have largely been designed to help
183 address consistent and coordinated 9-1-1 service delivery throughout regions,
184 along with the need to address telecommunication services that are becoming
185 much more mobile and complicated. While most of the sixteen (16) ETSBs

186 efforts are supported through enabling legislation, in some cases, local 9-1-1
187 Authorities have worked out other less formal ways to address the need for
188 coordination and joint planning.

189 Q. Can you elaborate on the less formal ways?

190 A. Within a coordinated, intergovernmental approach, there are several ways a
191 Regional NG9-1-1 system can be implemented. All involve intergovernmental
192 coordination and planning to some degree, vary in institutional arrangements,
193 support, and authority based on a variety of factors related to the historical
194 relationship of state and local government and the evolution of 9-1-1 services
195 within the states involved. Some states do not provide for state level 9-1-1
196 Authorities. Rather they authorize local governments to join together in regional
197 efforts to coordinate service delivery and share resources. That authorization may
198 occur through specific enabling legislation (directed toward 9-1-1), or be a by-
199 product of existing joint powers/intergovernmental cooperation legislation. In
200 any case, the sixteen ETSBs have a legal basis of existence and may operate as
201 political subdivisions of the local government. The planning efforts of your
202 neighboring localities are just as important as your own to the nationwide
203 transition to NG9-1-1 and to the effectiveness of NG9-1-1 in your own
204 jurisdiction. Development of regional NG9-1-1 systems, such as sixteen ETSBs
205 in Southern Illinois, will speed nationwide adoption of NG9-1-1.

206 Q. Have the CSI ETSBs executed call handling agreements with the adjoining
207 counties in the service area?

208 A. Yes, all 9-1-1 systems in Illinois already have adjacent agency agreements with
209 their neighboring systems. Overflow calls from the NG ESInet will go to systems
210 with those existing agreements. Those agreements are currently on file with the
211 commission.

212 Q. Do the members of CSI have the financial ability to implement and operate this
213 system?

214 A. Yes, the largest expense is the upfront cost of building out the network and
215 purchasing the next-generation equipment for the data centers and PSAPs. The
216 \$600,000 Department of Justice Community Oriented Policing Services (COPS)
217 program grant and the \$100,000 Delta Regional Authority grants were used to
218 purchase the new PSAP equipment. The Clearwave Broadband Technology
219 Opportunities Program (BTOP) grant, managed by the National
220 Telecommunications and Information Administration (NTIA) and funded by the
221 American Recovery and Reinvestment Act, was used to provide fiber for the
222 ESInet and the hardware and software for the data centers. Under terms of the
223 grant, they are providing low-cost fiber connections to the PSAPs. CSI has
224 already provided the local match for the COPS and Delta Regional Authority
225 (\$450,000). We have paid \$65,000 for GIS services through the university;
226 \$27,000 for legal services, and \$163,000 for the first three years of maintenance
227 on the system. Since we pre-paid maintenance, the vendor has agreed to replace
228 the data center hardware after five years and to provide any new hardware
229 required to implement new technology such as a texting solution. The only
230 maintenance costs for NG 911 equipment prior to 2015 will be time and materials

231 paid to DHR Tech solutions. They will only be used when our local staff is
232 unavailable. Each of the 16 ETSBs has been operating enhanced 9-1-1 systems
233 for years. Most of those functions will not change, so the annual budgets will
234 have very little change. Old maintenance contracts on legacy 9-1-1 equipment and
235 software will end. Since we are dividing CSI costs, the new charges will be
236 affordable. The ACME Packet contract for maintenance of the session border
237 control software is estimated at \$2000 per member per year. Future NG9-1-1
238 systems in the state may wish to share the cost of our BCF rather than purchase
239 their own, saving both CSI and the new system money. The monthly recurring
240 costs for connection to the ESInet will be \$250 per PSAP, per month, for most
241 members. Insurance on the data center hardware should be \$3200 annually.
242 Database management service fees should be lower than what is now charged by
243 the LEC (Frontier or AT&T). The recurring cost of SS7 services should be offset
244 by a reduction in the selective routing and other network charges that the ETSBs
245 now pay the local exchange carriers. Collectively, CSI members now pay Frontier
246 and AT&T about \$752,000 per year. Once CSI takes over geo-spatial call routing
247 and database management, those fees should drop to about \$428,000 a year. The
248 amount of savings for each ETSB varies depending on what services their LEC
249 had been providing. Every system's current operating expenses for personnel,
250 office operations, road signs, education, training, radio, CAD and recording
251 systems, etc will remain the same. CSI members should not have to reduce other
252 budgetary obligations in order to pay their share of the project. There will be no
253 additional system maintenance cost to NG-911, Inc. until 2015. Starting in year

254 four, CSI will pay about \$5400 per year for maintenance on the NG9-1-1 system.
255 By then, network costs should be reduced by a sufficient amount to cover that
256 expense. Most of the CSI ETSBs were looking at a huge cost to replace their
257 aging legacy hardware and software, some of which was more than 15 years old.
258 Instead, all of their new hardware and software was paid for through the various
259 grants or the local matching funds provided. The ETSBs are appointed by the
260 county boards. If the ETSB's ever fall short on funds, the County government
261 must pay for the service. They have the taxing authority to raise additional funds
262 if needed. Soon legislation will be introduced in Springfield to increase funding
263 for 911 systems in Illinois.

264 Q. How will CSI maintain the new system?

265 A. Tier one support will be handled locally, just as it has always been. The first
266 point of contact for a PSAP level problem is the local 911 Coordinator/Director or
267 their Information Technology staff. The contact for a problem at the data centers
268 Jackson County is CSI Information Technology expert Steve Dixon. If he is not
269 available or if the problem requires hands-on attention on the east side of the
270 project area, we will use Ryan Trusty of DHR Technology. Dixon and Trusty can
271 then contact the NG-911, Inc. staff and they can gain remote access to the system.
272 CSI Project manager Pat Lustig, who lives in Murphysboro, Treasurer Tracy
273 Felty, whose office is in Harrisburg, and CSI Chairman Ken Smith, who is located
274 halfway between the two data centers, will also be trained on tier one support in
275 case neither Dixon nor Trusty are available. They would respond to the data
276 center and contact NG-911, Inc. Travis Stender and his staff are located in

277 Belleville. They will provide 24 x 7 x 365 phone support and will provide a
278 minimum 3-hour response time in person for problems that cannot be corrected
279 remotely or by phone. NG-911, Inc. will contact any of the sub-contractors for
280 problems specific to that portion of the system. This includes Bullberry for
281 mapping issues, 911 Datamaster for database issues, Solacom for routing issues,
282 HigherGround for recording issues, Assure 911 for network monitoring issues and
283 ACME Packet for boarder control issues. If Tier two (2) personnel determine that
284 the problem is network related, they will contact Clearwave as well as NG-911,
285 Inc. Clearwave and NG-911, Inc. will then contact the appropriate vendor
286 depending on whether the problem appears to be a network gateway, thus
287 contacting Calix or Juniper, or a session border control issue, thus contacting
288 Acme Packet. For Tier one (1) thru three (3) escalation policies, refer to Design
289 Plan Exhibit (14).

290 Q. How will customer data and map data be handled?

291 A. The exchange carriers will provide a daily (M-F) update of inserts, deletes, and
292 changes to the database. Each 9-1-1 Coordinator will look at their own records to
293 make sure that they are valid addresses. Each 9-1-1 Coordinator will remain in
294 charge of their own map data. Changes such as new roads, structures, boundary
295 changes etc will be uploaded to the CSI FTP site. The GIS Staff will verify that
296 the data is in proper format and then load it into the data center servers.

297 Q. Does this conclude your testimony?

298 A. Yes.