

Regulatory Mandates, the Market, and the Future of IP E911

Remarks of FCC Commissioner Kathleen Q. Abernathy

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Thank you very much for that introduction, and for having me here today. As this morning's tragic and heartbreaking events in London have emphasized to us once again, the work that NENA and the VON Coalition are doing in this area is extremely important. I am honored to have this opportunity to talk with you.

I would like to take this time to share with you some principles that I believe should guide us as we develop E911 systems for the IP era. Specifically, I want to emphasize the importance of making sure that the solutions we develop capture the benefits of a competitive marketplace. And I want to underscore that this is possible even where those solutions are, at bottom, designed to satisfy a regulatory mandate.

As you know, I have long favored market solutions over regulatory requirements. For example, I have opposed economic regulation of the CMRS market, the market for broadband Internet access, and the emerging markets for Voice over IP, broadband over power line, and other nascent services. That's because, in most cases, markets are just more effective at delivering benefits to consumers than regulation.

In the right circumstances, markets allocate resources efficiently, putting them to the uses that produce the most value. Regulators can only *guess* at these best uses, incurring substantial information costs along the way, and sometimes, unfortunately, getting it wrong. Why? Because markets are *dynamic*: They require participants to react quickly to changed circumstances, and to adjust their plans accordingly. In contrast, regulation is *static*: It often takes months, if not years, to change course. Markets are *forward-looking*: They require participants to consider tomorrow's problems today. Regulation is generally *backward-looking*: It is designed to solve yesterday's problems, and it often results in solutions that remain in place until *new* problems reach crisis proportions. Markets create *floors*: They require providers to develop better and better products at lower and lower prices. Regulation tends to create *ceilings*: It requires providers to offer a particular service or feature but often destroys any incentive to improve on it, or to expand its scope.

For all these reasons, when the Commission has applied a light regulatory touch and resisted calls to micromanage, competition has thrived, innovation has flourished, and consumers have benefited. Where we have overregulated, investment has declined, technological progress has slowed, and all parties concerned have suffered.

But *sometimes* the costs of regulation are justified by the greater costs of inaction. In particular, there are certain core social policy goals that simply are *not* market-driven, and that cannot be achieved without governmental urging and/or mandates. E911 access, of course, falls into this category.

The *very first sentence* in the *very first section* of the Communications Act establishes the Commission “for the purpose,” among others, “of promoting safety of life and property through the use of wire and radio communications.” And we have learned that access to emergency services is essential to public safety. Terrorist attacks such as those that have occurred both within the United States and on foreign soil – including, it appears, this morning’s attacks in London – highlight the dangers we face, and thus the critical importance of E911. But emergency access is just as crucial on a day-to-day basis, as we confront the burglaries, the heart attacks, and the accidents that rarely make the headlines. Nobody is immune from these routine dangers, and none of us can know when access to E911 services might mean the difference between life and death. In fact, NENA has estimated that 200 million calls are placed to 911 in the United States annually. In a country of just under 300 million people, that’s more than two calls for every three Americans, *every year*.

And so, when my fellow Commissioners and I looked at the evidence before us – which demonstrated wide variation both in the extent to which different VoIP services supported E911 and in the degree to which customers were being apprised of any limitations – we determined that universal E911 access was a public safety necessity. Specifically, we required that an interconnected VoIP provider must transmit all 911 calls, including a call back number and a caller’s “registered location,” to a PSAP or other appropriate authority. We also directed providers to inform all customers of any limitations on their products’ E911 capabilities. And we sought comment on what *additional* steps, if any, the Commission might need to take to ensure ubiquitous, reliable access to E911.

Clearly, the *IP 911 Order* did *not* rely on the market to resolve the most serious problems; rather, it imposed some important requirements on VoIP providers. But as we work to implement that Order, we must be guided, as much as possible, by the market’s ideals. If we keep those ideals in mind, can we make sure that the emergency access services we develop for the IP era reflect the dynamism and efficiency of the market, even though those services are the result of a regulatory requirement.

How do we do that? I don’t claim to have all the answers here, and you should be suspicious of anyone who claims to have them at this point. But I *would* like to propose some interrelated guiding principles for the long debate ahead of us.

First, in this area, just as in other areas, we must take care to create and maintain an atmosphere that rewards innovation and attentiveness to consumer needs. There is a big difference between a requirement that E911 *be offered* and a requirement that it be offered *in a particular manner*. The former removes from the market only the decision *whether* to develop and deploy the product. The latter would remove any opportunity for

providers to make their offerings more efficient, or more responsive to consumer needs. My fellow Commissioners and I are not engineers. We are ill-equipped to develop or impose particular technical solutions. Consumers, in contrast, are well equipped to decide which products are most valuable to them. So we must ensure that when it comes to the particulars of an E911 offering, they are empowered to choose the solutions that match *their* preferences. And we should guarantee that when providers *do* innovate, they are able to reap the fruits of their efforts. That approach will encourage providers to make wise use of their resources, and will direct even more capital to the providers who do so, leading to even better offerings in the future.

Second, we must welcome diversity and experimentation. Providers have both the means and the incentive to assess how technology and consumer needs will evolve over time. So long as they are satisfying the Commission's basic requirements, we should empower them to anticipate those trends and to adjust their offerings accordingly. Such latitude will confer direct and indirect benefits: To the extent providers are able to predict future developments, their products will continue to be of use as IP services evolve further away from the traditional telephony model, and as next-generation facilities replace outdated legacy networks.

Even where providers *cannot* anticipate the future, we will benefit from the diversity that stems from their experimentation. Evolution in the market is often much like evolution in nature: It produces diversity that cannot be planned, and gives rise to features that may come to have unexpected value down the road. We *could* ordain a single approach to the provision of IP E911, and that approach *might*, in theory, be the best approach in light of *today's* challenges. But there is no way to know whether that approach would be well suited for the unexpected problems that might spring up "tomorrow." We are far more likely to be ready for that tomorrow, when it comes, if we make choices *today* that encourage the development of varied, competing E911 solutions.

What kind of choices? For one thing, we should work to preserve diverse business arrangements through which VoIP providers offer E911. Those providers obtain access to the E911 network from ILECs, on a tariffed basis; through CLECs with whom they interconnect; and from third parties on a wholesale basis. These different arrangements help to ensure competition, and thus promote experimentation. We should also work to ensure that new offerings are able to interact with the legacy 911 system as necessary: If providers cannot guarantee that their customers will be able to reach a dispatcher, their innovative offerings will be useless, and their experimentation will soon come to an end.

Third, we should favor solutions that create "floors," not "ceilings." The debate over IP E911 has been focused on whether IP networks are capable of providing *traditional* E911 services. But while that issue is critically important, the question entirely misses the most important point, which is that digital IP networks are far *more* versatile, and far *more* capable, than their analog, circuit-switched predecessors. As we implement the Commission's E911 mandate, we must be thinking about how to

encourage the deployment of innovative *new* offerings that use IP's unique features to save more lives.

We can imagine a world in which firefighters are able to download floor plans for the specific home they are about to enter, and in which law enforcement officers have access to live video of the site of an ongoing robbery, provided via the 911 caller's wireless IP phone. We can imagine an ambulance crew on its way to rescue a patient, monitoring that patient's heart rate and blood pressure, which are being transmitted by a device in his home. Such offerings may be immensely useful one day. But we cannot know today *which* of these options, if any, are likely to be deemed most essential by consumers or first responders – and which should be pursued by providers. Nor do we know which will flow most directly from existing technologies, and which can only be developed after other innovations have been perfected and deployed.

In such circumstances, a requirement that providers offer a particular service could well *deter* investment in alternative applications, including applications that might be *more valuable*. Similarly, specific technical or operational requirements for the provision of E911 might skew research and development efforts, stunting the growth of these more advanced applications. These approaches would turn the “floor” created in our *IP 911 Order* into a *de facto* ceiling, and they should be avoided.

To summarize, as we think about how to ensure access to E911 during the transition to digital IP networks, we must develop a framework that rewards innovation and attentiveness to consumer needs; that promotes diversity and experimentation, and that establishes floors, not ceilings. As I mentioned, these principles are interdependent, and I expect that each one will buttress the other two. Together, they can help ensure that the emergency access services of the future benefit from the advantages of market competition.

Of course, it's easy to lay out basic principles, and much more difficult to turn those principles into specific solutions. That burden will be borne by all of us together – by VON and NENA, by providers, by the public safety community, and by policymakers. I expect that the debate to come will be heated and long-lived. But it is an absolutely essential discussion, and I thank you for all you are doing today to advance it.

Thank you very much for your time. I would be happy to take some questions before I go.