

**STATEMENT OF  
CHAIRMAN JULIUS GENACHOWSKI**

Re: *Reliability and Continuity of Communications Networks, Including Broadband Technologies*, PS Docket No. 11-60

The recent devastating earthquake and tsunami in Japan are a stark reminder of how heavily we depend on reliable and resilient communications networks, especially during major emergencies. It is an unfortunate irony that such disasters often provide the best opportunity to learn about the strengths and weaknesses of communications infrastructure.

The terrible events in Japan are an example of a tragedy of scale in a broadband society. The Japanese used broadband to mitigate the impact of these natural disasters, and their efforts offer examples for us.

For example, the Japan Meteorological Agency's earthquake early warning system relied on broadband to automatically issue alerts via cell phones and TV after the first, less harmful earthquake shock wave, providing a short window for people to prepare for the more powerful shock wave that followed.

The broadband-based warning system also caused many energy plants, industrial facilities, and transportation services to shut down automatically, averting problems at these locations. High-speed trains automatically came to a safe stop in response to earthquake alerts transmitted along the rail system.

The United States does not currently have a comparable earthquake warning system. It is something we should consider, especially for our regions that are most prone to earthquakes.

The events in Japan also demonstrate the importance of reliable and resilient Internet-based communications, especially mobile services. Residents of Japan with mobile phones, for example, were able to rely on their battery-powered devices to access web-based disaster message boards, Twitter, and social networking sites to report on their status and check for updates regarding family and friends. People reporting into disaster message boards could choose a pre-set status message or write their own short message, and millions of such messages were recorded in the days after the earthquake and tsunami.

The continued ability to use wireless devices to access the Internet was in large part due to the redundancy of Japan's wireless mesh network, which can automatically reroute signals over alternate paths if one route is destroyed. The reliability of mesh networking is another lesson we can draw from Japan.

I understand that the Government of Japan and Japanese communications providers have put considerable thought and planning into disaster contingency plans, including backup power requirements. We strive to learn more about the specific best practices in Japan, which enabled an impressive communications recovery in light of widespread devastation. In the United States, we have no federal rules on backup power, and we have to ask whether that situation is acceptable. The inquiry we initiate today is intended to explore this and similar important questions.

The Japanese tragedy showed the role that broadcasting plays in emergencies. Radio in particular played a significant role in Japan, as residents who lost power could turn on the radio in their cars and receive essential information.

The Japanese tragedy also showed the importance of having redundant transmission facilities. Three of seven trans-Pacific undersea cables had sections of their systems badly damaged in the earthquake. These undersea cable systems are expected to be restored in the next two months, but because of both the redundancy and the resiliency of the undersea cable networks, international communications to Japan continued even on the days immediately following the earthquake.

Such redundancy is generally in place for undersea cable systems that directly serve the United States. The Commission keeps a close eye on the resiliency of these important communications networks, and Japan shows us why it is important that we be vigilant.

Events such as those in Japan shine a light on the importance of ensuring reliable and resilient critical communications infrastructure at all levels, at all times, and especially during major disasters.

In the United States, virtually every segment of our society relies heavily on communications networks – both wireless and wireline, both legacy systems and, increasingly, broadband networks. This includes our Nation's first responders and public safety providers; the energy, health care, and financial sectors; and homes and businesses across America.

The rapid migration of our Nation's communications infrastructure from older legacy technologies to Internet Protocol-based broadband technology underscores the need for an assessment of the reliability of our communications networks.

That is why the National Broadband Plan recommended that the Commission commence an inquiry to better understand the reliability and resiliency standards being applied to broadband networks. Users of communications services today – whether large enterprises, small businesses, or individual consumers – expect the same reliable service no matter what platform they use (and may not even be aware of what platform they use).

Today the Commission takes another step to implement the National Broadband Plan by launching a disciplined approach to gathering information about the reliability and

resiliency of our Nation's communications infrastructure. Our goal is to determine what actions we should take to ensure that our communications networks remain functioning when there is a natural or manmade disaster.

Communications service providers have a legitimate interest in protecting sensitive commercial and proprietary information. And we understand the real-world economic constraints that commercial providers face. We will be mindful of that while seeking to understand the robustness of our communications networks and identify actions to improve the operations of our communications systems in an emergency. These matters are also of vital importance as we transition to and implement Next Generation 9-1-1, which is a priority for this Commission.

Finally, this inquiry implements a key energy recommendation of the National Broadband Plan by considering matters related to giving utilities the certainty they need to use commercial networks for smart grid communications.

This Notice of Inquiry takes an important step forward to examine all of these matters. While we of course strive to prevent and minimize the impact of major emergencies, we also know that they are inevitable. This Inquiry is about ensuring that our communications infrastructure is prepared when disaster strikes. Recent events remind us of the powerful importance of this effort.