

Written Testimony of Brian J. Allen
Group Vice President and Chief Security Officer, Time Warner Cable
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Panel #2: Assessing Network Resiliency – Lessons Learned From Sandy
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INTRODUCTION

My name is Brian J. Allen, and I am the Group Vice President and Chief Security Officer of Time Warner Cable, a leading provider of video, Internet, and phone services in the United States. Time Warner Cable provides services to more than 15 million customers, including in New York, New Jersey, and other areas on the East Coast that bore the brunt of Superstorm Sandy. In my role at Time Warner Cable, I am responsible for the company's crisis management and business continuity management programs, including coordination with federal, state, and local emergency management organizations. In particular, I am responsible for coordinating all aspects of Time Warner Cable's efforts related to disaster planning, preparation, response, and recovery.

I am very proud of our performance during Superstorm Sandy, and I appreciate the opportunity to share with the panel Time Warner Cable's experiences and observations during and after the storm. I will describe our preparation for, and response to, Superstorm Sandy. I will also discuss some of the lessons that we learned from the storm, and offer some ideas on how the communications industry and government agencies can work together to enhance our ability to respond to extreme weather events such as Sandy in the future.

BACKGROUND

Time Warner Cable provides cable television, broadband Internet access, and digital phone services to residential and business customers in 29 states. We also provide cell tower

backhaul services to wireless carriers and transport services to other carriers, as well as enterprise-class hosting, managed application, messaging, and cloud services. Our headquarters is in New York City, and we provide services in New York, a small portion of New Jersey, the Carolinas, and other states along the Eastern seaboard that were impacted by Hurricane Sandy.

We provide these services over a network architecture that is designed to remain operational to the greatest extent possible in emergency situations. We aim to ensure that our network is robust and resilient, with redundancy of key facilities. We also coordinate with government agencies on an ongoing basis, both through formal mechanisms such as governmental working groups and on an informal basis. We have an emergency response team that has developed plans and procedures to respond to various types of crises, and we test those procedures on an ongoing basis. We also take proactive steps to place generators and fuel at critical locations to facilitate continuity of operations to the greatest extent possible. And we also continually reassess and refine our emergency plans and procedures based on actual experience.

PREPARATION FOR SANDY

Time Warner Cable's preparation for Superstorm Sandy began well in advance of the storm's arrival. While the storm hit New York on October 29, 2012, we began actively tracking the storm and began our pre-storm planning a full week earlier. In light of the storm's predicted path, we immediately activated our internal crisis management teams. We also implemented our hurricane checklist, which includes verifying phone tree information, reviewing crisis communications protocols, testing and topping off generators, readying trucks, and filling and placing sandbags at key sites. Pursuant to our hurricane checklist, we also engaged key vendors,

including requiring some of them to remain on site throughout the storm. And we engaged and actively participated with government partners at the local, state, and federal levels throughout the week prior to Sandy's arrival. Prior to the storm, through our crisis management preparation efforts, we had established a relationship with the NYC Office of Emergency Management (NYC OEM). During the storm and for 5 days thereafter, we had TWC representatives at the NYC OEM on 24 hour shifts cooperating with many agencies during recovery efforts. Through this relationship we were able to share and receive timely information to assist us with our recovery efforts as well as work on specific issues such as the Tree Removal Task Force and debris removal teams.

On the Federal side, TWC is a member of the Communication Information Sharing and Analysis Center (COMM ISAC). Along with 58 other private sector telecommunication providers/vendors and 25 Federal agencies (including the FCC and FEMA) that make up the COMM ISAC, we actively participated in the COMM ISAC process. We had up to 4 calls per day, and collaborated and solved problems with our fellow private sector partners as well as our public sector partners. Joseph Viens, a member of my team and TWC's Enterprise Director of Business Continuity and Crisis Management, is the current chair of the COMM ISAC.

In addition to these coordination efforts, we took steps to pre-position emergency support equipment and personnel before the storm's arrival. We established mobile command centers to facilitate and coordinate our response to the storm, and we deployed Fuel Dispensing Platforms and crisis response trailers. We staged 150 portable generators, in addition to the generators we rely on in the ordinary course of business. We distributed satellite phones and two-way mobile radios to key personnel to assist in communications throughout the storm. We also conducted

testing and training of the Government Emergency Telecommunications Service and Wireless Priority Service for our personnel on such lists.

IMPACT OF SANDY

As you know, Sandy was the largest Atlantic hurricane on record, with winds spanning a diameter of 1,100 miles. Sandy also was unique in that it merged with a strong cold front as it approached the Northeast, resulting in the “Superstorm” moniker. The storm affected 24 states, including the entire Eastern seaboard, and it caused particularly severe damage in New Jersey and New York. The storm surge hit New York City on October 29, 2012, flooding streets, tunnels, and subway lines, and cutting power in and around the city. Hundreds of thousands of people were evacuated, and eight states declared states of emergency. Sandy is estimated to have caused over \$65 billion in damages, making it the second costliest hurricane in U.S. history.

I am pleased to report that, despite the devastation caused by Superstorm Sandy, our extensive preparations for the storm resulted in our being able to maintain service for the majority of our New York City area customers during the storm, although we did sustain service outages and damage to our network.

For example, 40 of our hubs in the affected area went on generators, several of which, particularly in Staten Island, Brooklyn and Queens, lost power temporarily due to flooding or other problems transitioning power to the generators. In addition, our main headend in New York City, located on East 23rd Street, lost power twice for a period of time due to generator fuel supply issues, resulting in service outages for video, high-speed data and phone service subscribers.

We also experienced service outages as a result of damage to fiber lines. For example, in New York City, a fiber cut in Brooklyn caused by a three block span of fiber burned by fallen power lines affected redundancy for our New York City metro network and some of our cell tower backhaul services. It also impacted multiple nodes and some commercial fiber customers.

OUR RESPONSE TO SANDY

Our response to the storm was immediate and sustained, despite the exceptionally difficult circumstances, and I am very proud of the way that our team responded. For example, although many of our employees and contractors faced damage to their own homes and fuel shortages that impaired their ability to travel, the majority of them reported for duty during the storm. We were able to immediately deploy key personnel to assess and respond to the storm. We fully activated both our global and regional network operations centers, and invoked our Emergency Response Plan. We also activated an assessment plan and deployed crews to conduct and complete a comprehensive review of the damage. We continued to deploy trailers and fuel dispensing platforms throughout the region. We set up and staged six vehicle fueling sites, activated our generator re-fueling plan, and leveraged relationships to bring in fuel from seven states. As noted below, sufficient fuel for a sustained period of time was a challenge. Our focus throughout was on restoring services as quickly as possible to provide vital communications to people in affected areas.

In addition, we took significant steps to help people throughout the New York City and New Jersey areas during and after the storm, including people who are not Time Warner Cable subscribers. For example, we deployed vehicles with mobile charging stations so that local residents could charge their electronic devices such as smartphones, tablets, and laptops. Our

trucks provided free Wi-Fi access throughout New York City to help those in need, and we opened up all of our Wi-Fi hot spots in New York City so that anyone could use our high-speed data network. In areas such as Far Rockaway and Staten Island that were without power for extended periods, we equipped mobile stations with hard-line phone service and brought laptop computers and phones to the stations so that people could communicate with their insurance carriers and reach loved ones. We deployed street teams to walk around neighborhoods to see if they needed customer care from the company. We sponsored a fleet of food trucks in the wake of the storm to serve free, warm food to people displaced by the storm, in areas such as Brooklyn, the Rockaways, Breezy Point, and Staten Island. Our local news channel, NY1, made all of its content available on its website without requiring visitors to log in.

As we assessed the damage from the storm, we continued to work closely with local officials to gain access to damaged areas in order to complete repair of distribution and fiber networks. We acted quickly to repair generators that were damaged from wind or water. We also provided fuel to our employees and contractors, which enabled them to report for duty. We worked with other telecommunications carriers and Internet Service Providers to collaborate on problem solving. For example, through our involvement with the COMM ISAC, we worked directly with other service providers on fueling issues. We also offered a solution to restore portions of a wireless carrier's network utilizing our fiber infrastructure, although it ultimately did not pursue this solution. And we brought in additional crews and key personnel from all over our company to assist with the response and recovery.

We took steps to automatically credit our residential and business customers whose services were interrupted. We posted credits directly to our subscribers' accounts for customers who were located in the hardest-hit parts of our service areas. For subscribers who were forced

to relocate temporarily following damage to their homes, we waived any fees associated with installing, transferring, or reconnecting service. We also waived fees associated with suspending accounts for customers who needed to disconnect their services temporarily to deal with their home situation. Time Warner Cable also has pledged \$600,000 to three relief efforts: the Mayor's Fund to Advance New York City, the American Red Cross of Northeastern New York, and the American Red Cross of Northern New Jersey.

TAKEAWAYS AND STEPS TO IMPROVE PREPAREDNESS IN THE FUTURE

Once we were able to verify that service levels had returned to normal, we took the time to assess our response to the storm and learn from the experience. We solicited feedback from approximately 250 Time Warner Cable employees and vendors involved in the storm response and recovery, and conducted scores of face-to-face interviews of key personnel and vendors. We looked at all facets of our response, including communications, logistics, critical infrastructure, and human and non-human resources. We also participated in evaluation sessions through the National Coordinating Center and the New York State Ready Commission.

Here are some of the key challenges that we faced during our response to the storm. First, fuel logistics proved to be very significant. A significant number of our employees could not get fuel for their own personal vehicles and therefore had difficulty getting to work. We brought in fuel from Delaware, Florida, Georgia, Louisiana, and Ohio, among other locations. Our ability to provide fuel to our employees and contractors for personal vehicles was instrumental in speeding our ability to return service levels to normal. As a result of our robust post mortem efforts, we are currently working on enhancing our current strategic fuel plan, to include bulk fuel reserves, distribution, and enhanced logistical support. The panel should

consider ways to improve fuel logistics in preparation for future storms to ensure that personnel have the fuel necessary to get to work and other sites.

A second challenge that we faced related to access issues. The storm resulted in numerous bridge closures and police roadblocks. The storm also forced many of our employees to use non-company and non-placarded vehicles. These issues impeded our ability to get our technicians to service locations to provide repairs. The panel should consider methods of improving access by technicians to communications facilities that need repair.

Third, we faced security challenges. During such a sustained period of damage and loss of power, we faced a number of security issues, such as stolen generators, and people stalking our fuel trucks and interrupting deliveries. We had to exercise caution in numerous instances to ensure the safety of our employees. The panel should work with the Department of Homeland Security and FEMA to improve communications between police and service providers to ensure the safety of employees that are working to return vital services to the affected communities.

Despite these challenges, I believe that our overall response to the severe problems created by Superstorm Sandy was very successful, and was a testament to the hard work and extensive preparation by our employees. Cable operators are not always recognized as providers of essential services. But we were able to provide critical communications services during one of the most challenging episodes in the region's history. Our robust facilities planning resulted in our ability to maintain service, uninterrupted, for the majority of our New York area customers. Our pre-storm preparations paid significant dividends, as we were able to have key personnel pre-positioned and on site. Our electronic fuel monitoring worked well and enabled us to prioritize fuel deliveries. Our communications tools throughout the storm and recovery worked effectively as we coordinated and deployed resources. The Government Emergency

Telecommunications and Wireless Priority Services functioned effectively, and helped to coordinate communications with government responders.

In summary, Time Warner Cable is proud of its network's resiliency and proud of the contributions of its employees in restoring communications to the area. We commend the work of this panel and look forward to partnering with the FCC and with other federal, state, and local agencies to improve our ability to respond to any future events.