

## United States Senate

November 8, 2019

Jeff Storey  
President and CEO  
CenturyLink, Inc.  
100 CenturyLink Drive.  
Monroe, LA 71203

Dear Mr. Storey:

I write to express my concern regarding the recent service outages that impacted the island of Kauai in Hawaii. I understand that sometime on October 27, 2019, a CenturyLink undersea fiber optic cable between Kauai and Oahu was damaged, which resulted in loss of services across Kauai. It is also my understanding that this outage left many of the island's residents and businesses without access to phone, internet, or cable services for a 24-hour period, with some customers experiencing outages for up to two days. There was also a subsequent outage beginning on November 1.

Hawaii is uniquely vulnerable to service disruptions due to the limited number of undersea cables supporting telecommunications for the islands. Companies serving Hawaii must account for these challenges and ensure that the infrastructure they count upon to deliver service is reliable. This includes design and engineering that incorporates adequate redundancy in case of network path or equipment failure so that people and businesses in Hawaii remain connected.

The outages on Kauai are a good example of how failed infrastructure that has not been made redundant can disrupt the lives and businesses of Hawaii residents. I am particularly concerned that the outage appears to have contributed to interruptions of 911 services, which could have had potentially serious consequences.

Accordingly, to understand how CenturyLink is addressing these challenges and ensuring that these types of outages do not happen again in the future, please provide my office with a written response to the questions listed below by November 22, 2019.

1. When did the outage begin and end? Provide dates and times.
2. When were customers and regulators given information about the outage? What information was provided, including whether they were informed about how long the outage was expected to last?
3. When did you become aware of the disruption to the fiber optic cable?
4. Is network redundancy built into your service for Kauai Island and how? If so, what is your plan to enhance the redundancy for Kauai customers? If not, why not and how will you address this deficiency?

Thank you for your attention to this matter. I look forward to your response.

Sincerely,

A handwritten signature in blue ink that reads "Brian Schatz". The signature is fluid and cursive, with the first name "Brian" and the last name "Schatz" clearly legible.

BRIAN SCHATZ  
United States Senator

## United States Senate

November 8, 2019

Thomas Rutledge  
Chairman and CEO  
Charter Communications  
12405 Powerscourt Dr.  
St. Louis, MO 63131

Dear Mr. Rutledge:

I write to express my concern regarding the recent service outages that impacted the island of Kauai in Hawaii. I understand that sometime on October 27, 2019, a CenturyLink undersea fiber optic cable between Kauai and Oahu was damaged, which resulted in loss of Spectrum services across Kauai. It is also my understanding that this outage left many of the island's residents and businesses without access to phone, internet, or cable services for a 24-hour period, with some customers experiencing outages for up to two days. There was also a subsequent outage beginning on November 1.

Hawaii is uniquely vulnerable to service disruptions due to the limited number of undersea cables supporting telecommunications for the islands. Companies serving Hawaii must account for these challenges and ensure that the infrastructure they count upon to deliver service is reliable. This includes design and engineering that incorporates adequate redundancy in case of network path or equipment failure so that people and businesses in Hawaii remain connected.

The outages on Kauai are a good example of how failed infrastructure that has not been made redundant can disrupt the lives and businesses of Hawaii residents. I am particularly concerned that the outage appears to have contributed to interruptions of 911 services, which could have had potentially serious consequences.

Accordingly, to understand how Spectrum is addressing these challenges and ensuring that these types of outages do not happen again in the future, please provide my office with a written response to the questions listed below by November 22, 2019.

1. When did the outages begin and end? Provide dates and times.
2. When were customers and regulators given information about the outages? What information was provided, including whether they were informed about how long the outages were expected to last?
3. When did you become aware of the disruption to the fiber optic cable? When did you first receive communication from CenturyLink about that disruption?
4. Is network redundancy built into your service for Kauai Island and how? If so, what is your plan to enhance the redundancy for Kauai customers? If not, why not and how will you address this deficiency?

Thank you for your attention to this matter. I look forward to your response.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brian Schatz". The signature is fluid and cursive, with a large, stylized initial "B" and "S".

BRIAN SCHATZ  
United States Senator

## United States Senate

November 8, 2019

Hans Vestberg  
Chairman and CEO  
Verizon Communications  
1095 Avenue of the Americas  
New York, NY 10036

Dear Mr. Vestberg:

I write to express my concern regarding the recent service outage that impacted the island of Kauai in Hawaii. I understand that sometime on October 27, 2019, a CenturyLink undersea fiber optic cable between Kauai and Oahu was damaged, which resulted in loss of Verizon services across Kauai. It is also my understanding that this outage left many of the island's residents and businesses without access to Verizon phone or internet wireless services for an 11-hour period.

Hawaii is uniquely vulnerable to service disruptions due to the limited number of undersea cables supporting telecommunications for the islands. Companies serving Hawaii must account for these challenges and ensure that the infrastructure they count upon to deliver service is reliable. This includes design and engineering that incorporates adequate redundancy in case of network path or equipment failure so that people and businesses in Hawaii remain connected.

The outage on Kauai is a good example of how failed infrastructure that has not been made redundant can disrupt the lives and businesses of Hawaii residents. I am particularly concerned that the outage appears to have contributed to interruptions of 911 services, which could have had potentially serious consequences.

Accordingly, to understand how Verizon is addressing these challenges and ensuring that these types of outages do not happen again in the future, please provide my office with a written response to the questions listed below by November 22, 2019.

1. When did the outage begin and end? Provide dates and times.
2. When were customers and regulators given information about the outage? What information was provided, including whether they were informed about how long the outage was expected to last?
3. When did you become aware of the disruption to the fiber optic cable? When did you first receive communication from CenturyLink about that disruption?
4. Is network redundancy built into your service for Kauai Island and how? If so, what is your plan to enhance the redundancy for Kauai customers? If not, why not and how will you address this deficiency?

Thank you for your attention to this matter. I look forward to your response.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brian Schatz". The signature is fluid and cursive, with a large, stylized "S" at the end.

BRIAN SCHATZ  
United States Senator