

# the Availability Digest™

Volume 12  
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--- achieving 100% uptime

September 2017

The digest of topics on Continuous Availability. More than Business Continuity Planning.  
BCP tells you how to *recover* from the effects of downtime.  
CA tells you how to *avoid* the effects of downtime.

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## Are You Prepared for the Next Natural Disaster?

The 2017 hurricane season has demonstrated all too effectively that natural disasters can take down our systems. Hurricane Irma wiped out power throughout half of Florida and most of the Florida keys. Hurricane Maria caused the entire island of Puerto Rico to lose power.

Add to that the recent devastating earthquake near Mexico City. These events must be a wakeup call to any company running mission-critical applications. Though natural disasters rarely happen (unlike this year), they do occur and can wreak havoc with your critical applications. Your best protection is to deploy backup systems geographically separated from your production systems so that at least one system will survive any such disaster.

Our stories in this issue describing the effects of Hurricanes Harvey and Irma are a stark reminder of the destructive power of Mother Nature. These articles are an example of the stories we write for the Digest and for others. If you have an article, a case study, or a white paper that you would like written, come talk to us. We also provide consulting services and seminars on high- and continuous availability. We will be glad to help you.

Dr. Bill Highleyman, Managing Editor

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## Never Again

### Hurricane Irma Causes Massive Power Outages

When Hurricane Irma slammed into the Florida coast, it caused one of the largest natural-disaster related power outages in U.S. history. The blackouts were far worse than those caused by previous hurricanes that hit Florida.

The storm caused 4.5 million Florida Power and Light (FPL) customers to lose power. All in all, half of Florida's 20 million residents were without power due to the storm. Other states up the East Coast suffered as well. One million Georgia residents were without power.

FPL warned customers and businesses that restoration of power to more than two million homes could take weeks.

The effects of many natural disasters such as hurricanes (unlike earthquakes such as the devastating quake that recently hit Mexico City) give plenty of warning. It is imperative that citizens take precautions to avoid being harmed. For instance, stock up on food, water, and gasoline – both for your automobiles and for electric generators. Be prepared to move to upper stories if there is going to be flooding.

And above all, consider evacuation, as many did as Hurricane Irma approached.

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## Best Practices

### Equifax Hacked for Data on 143 Million Consumers

One of the largest breaches of consumers' private financial data in history occurred in mid-2017. From May to July, the personal information of 143 million consumers was stolen by hackers from Equifax, a major consumer credit-reporting agency. In addition, the hackers gained access to the credit-card information of 209,000 card holders.

While not the largest data breach in history, it may be the most damaging. It revealed personally identifiable information on nearly 100% of the U.S. workforce as well as consumers from other countries. Stolen were names, addresses, Social Security numbers, and dates of birth.

The hackers that breached Equifax's servers exploited a security vulnerability in Apache Struts. A patch to fix the vulnerability was made available as soon as it was discovered, but Equifax delayed installing the patch for two months.

This is a painful example teaching us that cyber resilience begins and ends with the Board of Directors and the senior executives of the company. If they had ensured that Equifax had applied the exploitation fix as soon as it became available, this hack would not have occurred.

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## Availability Topics

### Hurricane Harvey's Hit on Houston Spurs NextGen 911

As Hurricane Harvey flooded Houston with over forty inches of rain fall, Houston residents in trouble did what they are trained to do – they called 911. But the emergency number struggled with the high rate of calls. At the peak of the storm, the service received 80,000 calls in a 24-hour period. The normal number of calls during such a period is 8,000.

Many people were unable to get through. Those that did were often put on hold while a recording promised that someone would be with them shortly.

Like most 911 systems, Houston's is based on telephone land-line technology. There are thirty 911 centers in the county containing Houston, the largest 911 operation in Texas and one of the largest in the country. Call takers took turns pulling twelve-hour shifts and sleeping in the building during the hurricane – there was no other option. Rerouting calls to 911 centers outside the system is not technically feasible because of the legacy telephone technology.

Next Generation 911 systems (NextGen 911) would make it easy to quickly shift calls to other counties. It also supports SMS text messaging, a boon when hold times are long and battery power is a precious resource.

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## Recommended Reading

### Disaster Recovery as a Service

Gartner, Inc. is an American research and advisory firm providing information technology related insight for IT and other business leaders located around the world. Gartner has just published its research paper on Disaster Recovery as a Service (DraaS).

In this paper, Gartner reviews several companies that are providing DraaS services. Gartner estimates that DraaS is currently a \$2 billion business, and that it will reach \$3.7 billion by 2021.

As more of the analog world becomes digitized, downtime affects more of the people. However, infrastructure and operations leaders must now shift their thinking away from internally facing DR strategies toward strategies for sustaining externally facing IT service continuity. This is especially true for those who will be tasked with supporting digital business and the Internet of Things (IoT), because the effectiveness of their strategies will be measured by the quality of the external customer experience and by the impact of that experience on the company's revenue and profitability.

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## Tweets

### @availabilitydig – The Twitter Feed of Outages

A challenge every issue for the Availability Digest is to determine which of the many availability topics out there win coveted status as Digest articles. We always regret not focusing our attention on the topics we bypass.

Now with our Twitter presence, we don't have to feel guilty. This article highlights some of the @availabilitydig tweets that made headlines in recent days.

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