

the Availability Digest™

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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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The articles you read in the Availability Digest result from years of experience in researching and writing a variety of technical documents and marketing content. It's what we do best, and we provide our services to others who value high-quality content created by IT specialists. [Ask us](#) about

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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

Never Again

Our Power Grid Must Be Reliable and Resistant

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 damage caused by Hurricane Irma emphasizes the need for a power grid that is both reliable and resilient.

Reliable power is power without interruptions. When we flick a light switch, we expect the light to turn on. This is power reliability.

Resilient power means that a power outage is quickly restored. If it takes an hour to restore power following an outage, this is power that is somewhat resilient. If it takes days or weeks to restore power, then power is not at all resilient.

Massive power outages caused by hurricanes and other natural disasters such as the devastating earthquake that recently hit near Mexico City can be ameliorated through the proper deployment of systems that can make power more reliable and resilient. Microgrids can continue to power their local communities even if the major power grid should shut down. On-site storage facilities can continue to power their sites in the absence of power from the power grid.

[--more--](#)

Best Practices

Equifax Hacked for Data on 143 Million Consumers

One of the largest breaches in history of consumers' private financial data 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 cardholders.

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.

[--more--](#)

Availability Topics

Hurricane Harvey's Hit on Houston Spurs NextGen 911

As Hurricane Harvey flooded Houston, Texas, the city's residents in trouble did what they were 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 landline 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 was not technically feasible because of the legacy telephone technology.

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

[--more--](#)

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.

In their paper, Gartner stated that as more of the analog world becomes digitized, downtime affects increasing numbers of businesses. 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.

[--more--](#)

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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