the Availability Digest

www.availabilitydigest.com
@availabilitydig

@availabilitydig – Our October Twitter Feed of Outages

October 2017

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

Abandoned mobile apps, domain names raise information security risks

Whether it's an unfortunately short shelf life or a discontinued need, mobile apps are often abandoned by creators, who sometimes move on to a bigger, better deal. Should the domain be abandoned by its creator, a lot of domain-specific data is left out in the wild. The apps still can contact custom domain names for arbitrary tasks like configuration changes, application updates or publishing information. The traffic from a mobile device that is still trying to connect to an old and expired domain exposes lots of personal information — contact data, text messages, pictures, GPS data and call logs, all sitting at risk of an attack.

https://t.co/TY6dBvjjGG

Is your app ready for Black Friday?

With the increasing use of mobile devices for online shopping, a major share of every wallet is now going to online retailers. The convenience of shopping anytime; anywhere perfectly suits the busy, on-the-go generation that is giving eCommerce businesses a big boost. Despite this reality, more than 70% of SMBs do not have their websites ready for a sudden rise in traffic and fail to tackle a huge volume of shoppers during seasonal peaks and following promotional campaigns.

https://t.co/lJacmeWeYU

Why did Hurricane Irma leave so many in the dark?

The National Hurricane Center issued its final advisory for Irma on September 11th; but for millions of people left in the storm's wake, the disaster remained far from over. One stark reminder? Power outages. Everywhere. Across the Caribbean, through the entirety of Florida, up into Georgia, and spreading into the Carolinas, Irma ripped power from the people. Seventeen million people, at its peak. Following herculean round-the-clock efforts of the largest assembly of restoration workers in history, the lights flickered back on. But questions about these outages—how many, why, for how long, and critically, could it have gone better—abound.

https://t.co/ArAQ6reWl1

Equifax Data Breach: Unpatched Apache Struts Vulnerability Was Exploited in Hack

Credit reporting firm Equifax announced Thursday that the hackers who breached its servers exploited an Apache Struts security vulnerability, which led to the exposure of personal information belonging to more than 143 million consumers in the United States. While Equifax reported the breach occurred sometime around mid-May, the bug in the Apache Struts framework was fixed in March, more than two months before the apparent exploit on Equifax servers took place.

https://t.co/88mAs9HWHa

Close the Data Center, Skip the TIC – How One Agency Bought Big into Cloud

It's no longer a question of whether the U.S. federal government is going to fully embrace cloud computing. It's how fast. With the current administration pushing for cloud services as part of its broader cybersecurity strategy and budgets getting squeezed by the administration and Congress, chief information officers (CIOs) are coming around to the idea that the faster they can modernize their systems, the faster they'll be able to meet security requirements. And that once in the cloud, market dynamics will help them drive down costs.

https://t.co/S1TfhxZlhz

How Aussie partners can help keep critical information safe in healthcare

In housing some of the world's most sensitive data, the healthcare industry plays host to vast amounts of critical information. Yet in Australia a gap remains, as customers fail to recognize the importance of back-ups and the capability to perform them. There are thousands of small to medium healthcare centers across the country; and despite a paper legacy, all now collect patient data electronically. Doctors, specialists and clinics need back-ups but do not have the tools or expertise to perform them to industry best practice.

https://t.co/qVbmYT2y8m

Why do airlines struggle with tech, and how can they fix it?

Is the airline industry really that far behind other industries when it comes to IT? Absolutely, say industry analysts. The reasons are many, but a key one that has led to systemic problems is simply that IT has not received enough attention, according to airline and travel industry analyst Henry Harteveldt. "Until recently, airline CIOs never had the respect they deserve from their CEOs," he said, "because CEOs hadn't been interested in IT. CIOs might be part of the executive leadership but often are not part of inner most circles [at airlines]."

https://t.co/OrRt9MulD4

Harvey highlights issues of aging 911 tech

As flood waters began swallowing roads and homes during Tropical Storm Harvey, panicked Houston, Texas residents did what everyone in the U.S. is programed to do in an emergency. They dialed 911. But the emergency number struggled with record-high call volume. At the peak of the storm, the service received around 80,000 calls in a 24-hour period. The Harris County area typically gets around 8,000 calls a day. Some people were unable to get through at all, and those who did were put on hold while a recording -- which promised the call was being processed – looped.

https://t.co/1cvVunBx3J

Banks Around the World Switch to Blockchain Technology

Traditional banks officially caught the summer's blockchain fever, in part propelled by the cryptocurrency boom. Quartz reported some of the world's largest banks, including Barclays, HSBC and the Swiss banking giant UBS, recently started exploring ways to build a paywall with blockchain technology, the same distributed ledger technology behind innovations like bitcoin. Then in September, the US Federal Reserve indicated it might also update outdated infrastructures with new systems using DLT and cryptocurrency-powered financial transactions.

https://t.co/S2GHFfSsqj

DataBank Plans Wireless Tower Data Center Services for Edge Computing

Another wireless-infrastructure heavyweight is getting into the new business of selling data center space at the bases of cell towers to help companies shrink the distance data has to travel between mobile devices and the networks of online video, voice, data, and cloud service providers.

https://t.co/ygzuQlT2Bg

Why tracking data centers is so hard

The U.S. Office of Management and Budget recently reported that the government has closed about 1,900 data centers since the launch of the Federal Data Center Consolidation Initiative in 2010, saving almost $1 billion. It also lists the remaining data center inventory at 9,000 and reiterates the goal set out by the Data Center Optimization Initiative to cut that number in half and save an additional $2.7 billion by the end of fiscal year 2018. These latest figures speak to a problem that has plagued the federal government for years: its seeming inability to accurately catalog and track its own data center inventory across all federal agencies.

https://t.co/z0ea9ZjlQe

Facebook's Denmark data center will supply heat to city

Facebook's planned Danish data center will supply hot air to the district heating system of the nearby city of Odense when it opens in 2020. When the site is built, Facebook's waste heat will be boosted by a heat pump and delivered as hot water into a heating system run by local Fjernvarme Fyn. Odense is the third largest city in Denmark, with 175,00 citizens - and Facebook believes it will supply up to 100,000 MWh of energy per year that could warm up to 6,900 homes.

https://t.co/8mc75YQPO4

Why don't we know how much airflow IT equipment requires?

If you've ever tried to find how much airflow a new server requires, then you've experienced the frustration of burning precious time to no avail. Finding server airflow requirements should be as easy as finding its power requirements since they are just as important, yet IT equipment vendors leave us guessing on how to properly specify cooling.

https://t.co/OivRrp79iP

Florida Data Centers Brace to Serve Customers Weathering Irma

Cloud computing is often touted as a more secure way to manage data off-site and above the fray. But information stored in and accessed via the cloud always comes down to earth because it is maintained in data centers, including many in Florida right in the predicted path of Irma. Those centers invoked disaster protocols to make sure clients were able to access important corporate data regardless of what devastation the storm wreaked.

https://t.co/PlwTsuedRt

Bureau blames old hardware

Decades-old hardware and outdated management practices must be overhauled at the Australian Bureau of Meteorology after extremely low temperature readings at two NSW sites were misreported. A review into the bureau's automatic weather stations has found there was equipment failure at Goulburn and Thredbo, hardware was "not fit for purpose", and there were "clearly failures" in systems of bureaucracy put in place back in the 1990s.

https://t.co/gdASjj2772

Dark DR – Avoid Its Costs with Active/Active

Traditional disaster recovery (DR) methods utilize an active/passive architecture, one in which there are two redundant servers. One server is actively processing the application, and the other acts as a backup system ready to take over should the production system fail. The two systems typically are located remotely from each other to avoid a dual failure due to some local disaster. From an operations viewpoint, the backup server remains 'dark' until it is needed. As such, this architecture is commonly called "Dark DR."

https://t.co/a3FuRFacfa

Equifax data leak could involve 143 million consumers

Data leaks have become so commonplace that it's incredibly easy to become numb to them, but credit reporting service Equifax recently announced a doozy that when all is said and done could involve 143 million consumers. This is bad. It was a treasure trove of information for the bad guys out there and included Social Security numbers, birth dates, addresses and, in some instances, driver's license numbers. The information came mostly from US residents, but a percentage also involved UK and Canadian citizens.

https://t.co/8TjXiEcVnZ

Hurricane Harvey creates new abnormal for the electric grid - One Step Off the Grid

Microgrids and distributed energy systems kept critical services up and running despite Hurricane Harvey's best efforts to do them in. Twenty-one convenience stores and gas stations in the Houston area remained open thanks to an unusual microgrid system designed by Enchanted Rock (ERock). The Texas-based company installs natural gas generators at commercial sites, which it aggregates into virtual power plant microgrids. During normal operations, the virtual power plant provides support services to the central grid. When an outage occurs, the generators island from the grid and provide back-up power for their host sites.

https://t.co/AVPdEfidRY

Instagram hack: API bug allowed hackers to access high-profile users' email addresses, phone numbers

Instagram notified its verified users that hackers managed to gain access to the phone numbers and email addresses of its "high-profile users" by exploiting a bug in its API (application programming interface). The popular Facebook-owned social media platform said it believed that "one or more" hackers got through a software glitch on Instagram's API and targeted high-profile stars to get their personal contact details.

https://t.co/VblhXtS4H0

How Houston's Data Centers Weathered the Storm During Hurricane Harvey

Hurricane Harvey brought a whole new calculus to disaster risk, slamming the Texas Coast with 125 mile per hour winds and then stalling, drenching parts of the area with more than 50 inches of rain – more than any storm event in American history. In the midst of calamity, the region’s data center teams secured their facilities and kept their customers online, including services that were vital to the region’s emergency response. There were no reports of any major Houston data centers experiencing outages.

https://t.co/mgQPvHbyXy

State of Louisiana upgrades to software-defined data centres

The U.S. state of Louisiana is completely modernizing its technology infrastructure, transforming the mismatched legacy network to an interoperable system of software-defined data centers and service-oriented architecture. The project began in 2014 with the overhaul of state Medicare and Medicaid systems. This led to a comprehensive review of the state’s technology infrastructure. In the end, it became the Louisiana Enterprise Architecture (EA) project, dedicated to modernizing and standardizing systems for all 16 state governmental agencies. When completed, the state hopes to have a modern system that is scalable, cost-effective, standardized, and customer-oriented.

https://t.co/gfC6tD1Zom

Google made a tiny error and broke half the internet in Japan

When an ISP makes a tiny mistake, the outcome could have immense repercussions – and this is precisely what happened in Japan. In late August, half the Internet in the country suddenly shut down after Google accidentally botched a Border Gateway Protocol (BGP) around Noon local time. The origin of the blunder was a number of falsely announced peer prefixes sent to Verizon.

http://bit.ly/2wbbeJg

Wasting millions on failed tech upgrades hurts Philadelphians

No matter the level of government, agencies must continuously analyze how to modernize their technology systems. Citizens deserve to interact and receive services from their government in the same manner that they perform daily tasks with ease and flexibility. Unfortunately, Philadelphia’s government (Philadelphia, Pennsylvania USA) has fallen well below the technological curve. Millions of dollars have been spent on several expensive systems that have not worked properly or were never even launched. These technology fails are not an unfamiliar discovery, and they have cost taxpayers more than $100 million since 2007.

https://t.co/y0G2FzNbR4

Hackers Gain ‘Switch-Flipping’ Access to US Power Systems

In an era of hacker attacks on critical infrastructure, even a run-of-the-mill malware infection on an electric utility’s network is enough to raise alarm bells. But the latest collection of power grid penetrations went far deeper: Security firm Symantec is warning that a series of recent hacker attacks not only compromised energy companies in the US and Europe but also resulted in the intruders gaining hands-on access to power grid operations—enough control that they could have induced blackouts on American soil at will.

https://t.co/xZUTHy9eIp

Harvey and the future of energy

The Hurricane Harvey flooding that overwhelmed much of Houston, Texas, in late August didn't spare the energy industry. Instead, it provided an argument for a more electrified and decentralized future. What could and should be done to lessen the impact of the next big one? Was this a once-in-a-lifetime flooding event or evidence of a new normal? Will the disaster quicken the U.S. shift toward low-carbon electricity, distributed power and less reliance on fossil fuels?

https://t.co/yOdl3osbI9

Trading on India's Multi Commodity Exchange halted due to glitch

Trading on India’s commodity exchange MCX was halted for almost an hour in early September because of a technical glitch in the upgraded software version that went live earlier during the trading day. Trading was halted after client orders failed to go through to the exchange.

https://t.co/BgXuwB06Yg

Subsea cable outage affects iiNet, Internode services

The SMW3 subsea cable between Perth and Singapore that services South East Asia, among other regions, suffered a break in late summer with a tentative six-week repair date. As a result, TPG-owned broadband providers iiNet and Internode were forced to re-route their services through their higher latency US connections. Customers were warned to expect higher than expected latency and slower speeds to international sites in Asia.

https://t.co/cWTLknBLKO

Internet of Things creates web of hacker risks

While the Internet of Things was intended to make life easier by connecting everyday objects to the Internet, experts warn that it is also giving new opportunities to hackers. A bipartisan bill introduced into the U.S. Senate on Aug. 1 — S. 1691, the Internet of Things (IoT) Cybersecurity Improvement Act of 2017 — would require vendors that provide Internet-connected equipment to the U.S. government to ensure their products are patchable and conform to industry security standards. It would also prohibit vendors from supplying devices that have unchangeable passwords or possess known security vulnerabilities.

https://t.co/cRc8M6HneL

Have We Learned Anything from Famous Downtime Fiascos?

Every company knows that planning for a disaster is an integral part of a business continuity strategy. After all, any business that relies heavily on IT systems appreciates that even minor downtime can quickly add up to millions of dollars in lost production. How common is downtime? According to a survey by Zetta, 54% of IT professionals have experienced an outage lasting eight or more hours. The most common reasons for downtime among those surveyed were power outages and hardware failure, circumstances seemingly out of the company's control. But are they?

https://t.co/xhM38oPjzu

Poor Management of Security Certificates Leads to Preventable Outages

Digital security certificates have become a vital part of online communications. Combining cryptography with a standardized format, they have grown from simple assertions of identity to full authentication methods. But as important as they have become, security certificates remain fallible.

According to one study, 79 percent of respondents suffered at least one certificate-related outage in 2016. Additionally, 38 percent suffered more than six; and 4 percent experienced 100 or more such outages last year. Unfortunately, response time is no better: 64 percent of respondents said that they were unable to respond to a certificate-related security event in six hours or less.

https://t.co/u8S7O7cBcw

New Orleans drainage at mercy of ancient, often broken power plant; cost for full upgrade: $1 billion

More than 50% of New Orleans' pumps rely on an archaic 25-cycle power standard generated by in-house turbines at the Carrollton power plant, a remnant from the original drainage system put in place a century ago to pump rainwater out of the city. While the city has brought in generators to provide backup power to pump stations and is working to repair two more damaged turbines, the mayor has warned the situation remains precarious; and restoring the power plant to full operation is going to cost millions of dollars.

https://t.co/GxhCCzHFi4

The prediction system for 'doomsday' solar flares: World's most advanced radar will take astonishingly precise measurements of space weather by 2021

Every few months, the Earth is hit by powerful solar eruptions that can cause power cuts, destruction of electronic devices, and increased cancer risks. And scientists fear that someday a 'doomsday' solar flare could be on the way. But the risks of solar storms could soon be reduced, as scientists are building the world's most advanced space weather radar in the Arctic.

https://t.co/MCSIAZQpC1

Docker brings containers to mainframes

Docker has announced the first major update to its flagship Docker Enterprise Edition 17.06, with a clear eye to on-premises data centers and DevOps. Docker rolled out the rebranded Docker EE in March. With that launch, Docker added the ability to port legacy apps to containers without having to modify the code. The major new feature of this update is support for IBM z Systems mainframes running Linux. Now containerized apps can be run on a mainframe, with all of the scale and uptime reliability it brings, and they run with no modifications necessary.

https://t.co/9fWWyS0Oh0

How to Know if An Active-Active Architecture Right for You

Software defined WANs (SD-WANs) have gained market momentum so quickly because their value proposition is multi-faceted. Some enterprises have looked to SD-WAN as a way to dramatically lower network transport costs, while others are building SD-WANs to automate network operations. One of the more common use-cases is to shift toward an “active-active” architecture.

https://t.co/plC4MXFCrP

Vodacom apologises for airtime glitch

Vodacom recently confirmed that an IT glitch lead to the sudden disappearance of customers’ airtime and data balances. “The issue was caused by a configuration change on our prepaid and top-up billing system that was problematic. We were able to isolate the cause and roll back this process during the course of last night. It impacted top-up and pre-paid customers that were on the network," the company said.

https://t.co/F5GpDfdW6G

Cisco's Network Intuitive effort to bring intelligence, machine learning to networking

Cisco has finally bowed to the need for ease of use and automation in its networking products. And it’s long overdue, CEO Chuck Robbins acknowledged in an interview.

https://t.co/zDYRLQ4xUT

Fujitsu Australia data centre suffers outage, loses bank data

In August, a Fujitsu Australia data centre suffered an outage that caused downtime and data loss at an Australian bank. The data centre in Homebush, near Sydney, went down between 9.24pm on a Saturday night and 3am on Sunday. The downtime reportedly caused unrecoverable data loss of testing and development data that had been running on virtual machines at a major Australian financial institution.

https://t.co/TUq8hiH3VH

Barclays weekend blackout: what you need to know

Millions of Barclays customers were without access to their accounts online or over the telephone as the bank shut down to carry out vital work to its systems. The weekend upgrade in August was to ensure Barclays was fully compliant with new 'ring-fencing' legislation. It was the first of many planned outages, which will continue for one weekend a month until January, except in December.

https://t.co/2zcV2rjIWY

US State Department suffers global email outage affecting its entire unclassified system

In August, the US State Department experienced a worldwide outage that affected its entire unclassified system. Officials said the system-wide outage began around 2am EST. A state department official told Reuters that the outage was caused by a human error and was not due to any "external action or interference."

https://t.co/MvgNJUWNKQ

Supercomputer sent into space to accelerate mission to Mars

A mission to Mars requires sophisticated computing capabilities to cut down on communication latencies and ensure astronauts' survival. To advance this mission, HPE and NASA launched a supercomputer into space on the SpaceX Dragon Spacecraft. This supercomputer, called the Spaceborne Computer, is part of a year-long experiment conducted by HPE and NASA to run a high-performance commercial off-the-shelf (COTS) computer system in space. The goal is for the system to operate seamlessly in the harsh conditions of space for one year – roughly the amount of time it will take to travel to Mars.

https://t.co/GXHbv42gBG

Why HPE is sending a supercomputer to the ISS on SpaceX's next rocket

Hewlett Packard Enterprise is sending a supercomputer to the International Space Station aboard SpaceX's next resupply mission for NASA, which is currently set to launch Monday. Officially named the "Spaceborne Computer," the Linux-based supercomputer is designed to serve in a one-year experiment conducted by NASA and HPE to find out if high performance computing hardware, with no hardware customization or modification, can survive and operate in outer space conditions for a full year – the length of time, not coincidentally, it'll likely take for a crewed spacecraft to make the trip to Mars.

https://t.co/Y4BOtLJpiG

Solar panel hack could knock out power grid

A security researcher has discovered several flaws in solar panels, which could be used by hackers to shut down the power supply of a country. According to Dutch security engineer Willem Westerhof, 21 vulnerabilities have been found in photovoltaic panels sold by SMA. Of these, 14 vulnerabilities received a CVE number. The flaws affect the inverters in the solar panels. Westerhof reported the problem to SMA in December last year.

https://t.co/pjOOe0h1I1

Blockchain hardware in your data center might not solve any problems

Blockchain, an emerging technology that tracks the transactions of digital assets without a central authority, has primarily run from the public cloud. Now vendors have begun to explore how they can tap into this interest by supporting blockchain hardware uses on enterprises' own IT infrastructure.

https://t.co/013uGLLfoK

StatsCan needed 30 hours to fix web outage after aging equipment crashed

An incident involving a leaky air conditioner at Statistics Canada's Ottawa data centre in June mushroomed into a major outage that, among other problems, left some exporters' trucks stuck at the American border. The rapid escalation of a minor spill into a 30-hour crisis was no accidental series of escalating events, says the former head of the agency. Instead, it was the result of obsolete equipment that's the responsibility of Shared Services Canada (SSC) — the government's troubled IT department.

https://t.co/Y4P6iqrcwN

Taiwan, at the heart of the world’s tech supply chain, has a serious electricity problem

On Aug. 15th at 5pm local time, millions of households and businesses across Taiwan suddenly went dark. For some, phone lines and TVs went dead for a few hours. For others, entire production lines came to a halt. Taiwan’s state-backed power monopoly Taipower said that the blackout was caused by human error. But it’s nevertheless flagging an important issue for the country—unless it reforms its current pattern of energy consumption, it’s on track to face a major crisis.

https://t.co/QtcDylFdGC

We'll learn a lot from the solar eclipse

Scientists were looking forward to learning a lot from the solar eclipse. But the nation’s energy suppliers didn’t want any surprises. It was especially important in North Carolina, the state whose electrical grid was most affected — and for the first time, as solar power confronted a solar eclipse.

https://t.co/Yrc995p6rd

'Perfect storm' of cable cuts led to Atlantic cell outage, says Bell Aliant

Bell Aliant says a widespread outage of its East Coast telecommunications network in August was the result of a "perfect storm" involving construction crews not checking where to dig. The breakdown affected emergency services in many parts of the Canadian region, caused widespread cellular outages on Bell, Telus, Virgin and Koodo, and also interrupted Internet and some land line services for about four hours.

https://t.co/Z6X1zSZKWa

How HPE is Making Blockchain Resilient

HPE has partnered with R3, the provider of the Corda open-source distributed ledger technology (DLT) platform, to bring resilience and scalability to DLT applications. HPE NonStop has both a highly resilient and high-performance database, SQL/MX, and a continuously available platform.

https://t.co/Jk35EW1tYY

Ships fooled in GPS spoofing attack suggest Russian cyberweapon

Reports of satellite navigation problems in the Black Sea suggest that Russia may be testing a new system for spoofing GPS. This could be the first hint of a new form of electronic warfare available to everyone from rogue nation states to petty criminals. On 22 June, the US Maritime Administration filed a seemingly bland incident report. The master of a ship off the Russian port of Novorossiysk had discovered his GPS put him in the wrong spot – more than 32 kilometres inland, at Gelendzhik Airport. After checking the navigation equipment was working properly, the captain contacted other nearby ships. Their AIS traces – signals from the automatic identification system used to track vessels – placed them all at the same airport. At least 20 ships were affected. While the incident is not yet confirmed, experts think this is the first documented use of GPS misdirection – a spoofing attack that has long been warned of but never been seen in the wild.

https://t.co/AqUeiD5TQz

A Small-Scale Power Solution Could Pay Big Dividends Across the U.S.

The Brooklyn waterfront had all the trappings of a Formula One Grand Prix on a recent weekend, with high-performance racers taking tight corners at speeds up to 140 m.p.h. But rather than running on gas, these 20 supercharged Formula E cars and the surrounding venue were largely powered by renewable sources of electricity. Such a feat was made possible by the installation of a tiny power grid designed just for the race site by the electricity company Enel.

https://t.co/CVfs3PCN7h