

the **Availability Digest**

www.availabilitydigest.com
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@availabilitydig – Our June Twitter Feed of Outages

June 2015

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.



"What is Code?"

Excellent article by Paul Ford, a writer and programmer who lives in Brooklyn, N.Y. He is a founding partner of Postlight, a company in New York City that builds Internet platforms and develops interactive products. Not a quick read, but well worth your investment of time.

<http://t.co/HnQsjWs8Uj>

Here are the highlights in Businessweek's incredible 38,000-word article on code

This article summarizes Paul Ford's "What is Code." The eleven highlights include

- The purpose of most software is to manage data.
- You're probably using the word "algorithm" wrong.
- There are at least 1,700 different programming languages, and developers get religious about them.
- Programmers are angry.

<http://t.co/2TXp6JVmjj>

NatWest's latest glitch is a perfect metaphor of problems facing UK banks

On Tuesday, 16 June, RBS chief executive Ross McEwan told analysts and investors he wanted RBS to be the number one bank for customer service in the UK by 2020. That very night, a mere week after George Osborne said he wanted to return RBS to private ownership, the bank's IT systems managed to misplace roughly 600,000 transactions. Nice timing.

<http://t.co/NjUEv9Yomw>

Thx to @richardqspencer and @ianopenvmsorg for the following: RBS payment failure could last days

About 600,000 payments that failed to enter the accounts of RBS customers overnight may not be completed until the end of the week, the bank has said. Customers from RBS, NatWest, Coutts and Ulster Bank - all part of the same banking group - were affected by the latest issue, which was caused by a segment of information not being inputted into the system.

<http://t.co/yCcFNfPN8z>

Thanks to @ianopenvmsorg for the following: Nationwide accounts 'disappear' online after weekend IT upgrade

Millions of Nationwide customers were unable to access their accounts online on 15 June after a planned IT upgrade at the weekend caused accounts to apparently “disappear.”

<http://t.co/xCi13EpEfo>

System Architecture & Risk Analysis - It's What We Do Best. Check out the Availability Digest's Consulting Services

Availability costs money. So does system downtime. For every application and for every system, there is an affordable balance between the two. Determining the proper balance for your company is what risk assessment and system architecture is all about. Check out our services.

<http://t.co/MmQ2vP0b2Z>

Can America's power grid survive a cyberattack?

The damage to modern society from an extended power outage can be dramatic, as millions of people found in the wake of Hurricane Sandy in 2012. The U.S. Department of Energy earlier this year said cybersecurity was one of the top challenges facing the power grid, which is exacerbated by the interdependence between the grid and water, telecommunications, transportation, and emergency response systems.

<http://t.co/NRMviMoEdI>

CloudBerry Lab Launches Backup Consistency Check

To ensure seamless recovery, CloudBerry has made it possible to implement regular, proactive backup consistency checks. "Backup verification enables businesses to identify corrupted backups so that they can replace them with good backups before they are needed."

<http://t.co/IVUqDWst0y>

Up to 45,000 customers left in dark in East Bay due to power outage caused by squirrel

Power was knocked out for thousands across the San Francisco Bay Area Monday evening, 8 June. At one point, the number of customers affected in the East Bay reached 45,000. The culprit was a squirrel that came into contact with electrical equipment at a power substation.

<http://t.co/ib370zezsU>

Volcano Watch: What does the National Earthquake Information Center have to do with Hawaii?

Increasingly, government agencies responsible for monitoring hazardous processes, e.g., earthquakes and volcanic eruptions, are taking advantage of technology to use resources efficiently. A great example is how the US Geological Survey's National Earthquake Information Center (NEIC) in Golden, Colorado, is used as a remote backup location for the Hawaiian Volcano Observatory (HVO).

<http://t.co/CzaN7H4i2I>

CommBank outage hits Eftpos, Netbank

CommBank suffered a major outage of its Eftpos, Netbank and ATM services on Friday afternoon, 12 June, with customers across the country unable to access banking services or pay for items.

<http://t.co/UObuPQqMr>

Power outage caused 'unacceptable' subway shutdown

Toronto Transit Commission officials say a power failure in early June caused an "unacceptable" communications issue that left the city's entire subway system at a standstill for ninety minutes.

<http://t.co/rVrycfCleg>

Southern Cross forced to divert internet traffic for third time this year

Southern Cross Cable said its cable network was cut in Niles Canyon, near San Francisco, on Tuesday, 9 June. Communications that normally would flow directly between the U.S. and Australia were diverted thru New Zealand. The incident follows two other cable breaks on U.S. segments earlier this year.

<http://t.co/ic26htSLv4>

Level 3 outage slows down the internet

An undisclosed fault on communications provider Level 3's global fibre network has caused an internet slowdown impacting a number of different services around the world.

<http://t.co/EEskjYTSdz>

From the Availability Digest: System Architecture and Risk Analysis - It's What We Do Best!

Learn more about the Digest's extensive consulting services. Our goal is to help you architect your systems to provide the proper uptime and data protection for your individual applications. To do so, we begin with a risk analysis. During this study, we determine the importance of each application to those who use it or for whom it is essential. Once our risk analysis is complete, we architect the appropriate systems for each of your applications.

<http://t.co/MmQ2vP0b2Z>

How Many Nines of Uptime Do You Need?

Service providers have many uptime guarantees. Which one you choose should be dictated on a workload-by-workload basis.

<https://t.co/Ez53tcPg9t>

BBC News - US hit by 'massive data breach'

Chinese hackers are suspected of carrying out a "massive breach" of the personal data of nearly four million US government workers. The Office of Personnel Management (OPM) confirmed that both current and past employees had been affected. The breach could potentially affect every federal agency.

<http://t.co/gRPTkIH5l>

From the Availability Digest: "How Can Data Centers Manage Drought?"

Much of the U.S. is suffering through a tremendous drought. California, Texas, and Oklahoma have been particularly hard hit. How are data centers handling the water shortage? For the most part, they are continuing to operate as is and are guzzling water to cool their systems. But there are more efficient cooling methods such as desalination and air economizers. These technologies may be too late for existing datacenters, but they certainly should be considered for new ones.

<http://t.co/Tmk7JGjs7z>

Online retailers blame lost sales on NAB payment system problems

An online storm is gathering around National Australia Bank, with businesses blaming thousands of dollars in lost sales on instability plaguing its secure credit card payment system.

<http://t.co/SfRK5pc6xp>

Systems failure: Bad IT systems integration may have cost CAA Rs9.6b

ISLAMABAD: Despite having purchased expensive automated data processing and billing systems, the Civil Aviation Authority seems to be unable to account for 22,897 flights over the past six years, an oversight that has likely resulted in the loss of nearly Rs9.6 billion to the national aviation regulator and airport operator, according to federal auditors.

<http://t.co/SefrixVfsg>

NSW Telstra customers lose phone, internet

Telstra has apologised for an outage that brought trains to a halt and left thousands of NSW customers unable to access phone and internet services for five hours in early June. Reports said maintenance repairs could have caused the glitch.

<http://t.co/9God3Cr1be>

The Critic's View – Cashless Payments Top Cash Transactions in the UK for the First Time

It seems that the days of the humble banknote and coin may soon be up, as more and more of us use so-called 'cashless' methods such as debit cards or mobile payments to pay our way. Data released by the Payments Council earlier this week revealed that 2014 was the first time the UK spent more using non-physical methods rather than cash, with the tipping point coming last July.

<http://t.co/HymYLt2cnd>

From the Availability Digest: "HP NonStop Servers Migrated to x86"

Fault-tolerant HP NonStop servers have come a long way from their origin as Tandem Computers. Along the way, NonStop servers have moved from proprietary hardware and software to become increasingly open, with a Unix-like operating system and support for modern programming languages. HP has now taken the final step in moving NonStop servers to commodity technology by migrating them to an x86 architecture. The new servers are known as HP NonStop X.

<http://t.co/JWeaOVfJm3>

VMS Software, Inc. Launches New Version of OpenVMS Operating System Worldwide

VMS Software, Inc. today announced the worldwide availability of VSI OpenVMS Version 8.4-1H1 operating system for HP Integrity servers based on Intel® Itanium® 9500 series processor.

<https://t.co/ueAJ4LBcZB>

'It's Alive!' LightSail Solar Sail Spacecraft Reboots Itself after Orbital Glitch

After eight days of uneasy silence, the LightSail solar sail experiment rebooted itself to recover from a software glitch in orbit, the Planetary Society said Saturday. Engineers had to wait for the automatic reboot, which may have been triggered by a stray cosmic ray.

<http://t.co/RL8jbH6ccH>

Bill Nye's Ambitious Solar Sail Has Lost Communication with Earth

The LightSail, the new solar sail spacecraft launched last week by Bill Nye and his Planetary Society organization, suffered a computer malfunction and ceased communication. After it launched, LightSail consistently sent back a number of data "chirps" to Earth over a two-day period, indicating its position and other important data about the spacecraft. According to the Planetary Society's website, it's likely that with each additional chirp, the satellite created a file that was too big for the Linux-based software system to handle. As a result, the system crashed.

<http://t.co/kiTIAEMX5v>

List of Operational Issues for Markets Since the Flash Crash

Five years after the Flash Crash, concerns about market stability remain. On the afternoon of May 6, 2010, the Dow Jones Industrial Average quickly plunged more than 500 points—only to rebound in a matter of minutes. The sudden decline turned a spotlight on the stock market's vulnerabilities, raising concerns about market manipulation and trading infrastructure. And while it remains the signature event for those concerned about the topic, operational problems and so-called "mini" flash crashes had happened before and have continued since.

<http://t.co/VK3XA1nnJu>

Stanford researchers could beat computer heat problem with light-based chip design

For a half-century, Silicon Valley engineers have doubled the efficiency of computer chips every two years, a trend so reliable it's become known as Moore's Law. But chip designers are running up against a wall as they try to shrink chips down even further: Ultracompact circuitry produces so much heat that it risks melting itself down. Industry leaders agree that the future of computing will involve switching from copper wire to beams of light. And now Stanford researchers have come up with a new approach that could make it easier to design such circuitry on a massive scale.

<http://t.co/SXsdTzfB34>

Air traffic control failure shows we need a better approach to programming

The causes of the National Air Traffic Services (NATS) flight control centre system failure in December 2014 that affected 65,000 passengers directly and up to 230,000 indirectly have been revealed in a recently published report. The report investigates two phenomena: the cause of the system outage and how the system was restored. It also examines NATS' operational response.

<http://t.co/9XALXPun7u>

How the iPhone crippled BlackBerry

The article is excerpted from *Losing The Signal: The Untold Story Behind the Extraordinary Rise and Spectacular Fall of BlackBerry*. Copyright © 2015 by Jacquie McNish and Sean Silcoff.

<http://t.co/ZMzAqnZtBt>

Belgian flights halted after air traffic power fault

More than 200 flights in and out of Belgium were cancelled or diverted on 27 May after a power surge disabled the operations of Belgocontrol, the domestic air traffic controller. The suspension prevented flights from arriving at or leaving all Belgium's airports, although planes could still cross at higher altitudes, where the upper air space is controlled by the European traffic authority, Eurocontrol.

<http://t.co/LRQRaXSHHt>

Google Fiber's botched update disables Wi-Fi and locks out users of the Admin panel

It is the turn of Google engineers to botch up a software update. On May 22nd, Google released an update for its Google Network Box. However, the buggy update somehow locked the existing users off their administrative panels and in some cases also turned off their Wi-Fi connections.

<http://t.co/f1CgPZZv9o>

O2 network outage attracts ire of business secretary

The O2 mobile network suffered an unexplained outage over the bank holiday weekend. The outage took down mobile connections in the afternoon and evening of 25 May. The fault with O2's network resulted in customers being unable to make or receive calls or use data services. Many O2 customers took to social media to complain, including business secretary Sajid Javid, who tweeted: "No signal @O2. Please sort it out."

<http://t.co/MG43zm9Uzw>

How Load Balancing and Failover Can Safeguard Your SaaS Business from Failure

It seems that everyone's doing business in the cloud. It is economically efficient, stable, scalable and easy to modify. On the other hand, great versatility and popularity also means increased vulnerability. Cloud servers are prone to query overload issues, where too much traffic crashes your database or compromises quality of service. With a capable load balancing solution in place, your cloud can serve virtually any volume of queries seamlessly, assuming you have the right setup.

<http://t.co/zWIDqAY1Wq>

Turkish blackout sparks fears of cyber attack on the West

Iran is now believed to be responsible for the blackout that on 31 March plunged over 40 million people into darkness in Turkey for over 12 hours, paralysing the country's principal cities. The power outage in Turkey represents a significant escalation in the cyber arms race as foreign powers gear up to launch major utilities strikes on cities such as London and New York.

<http://t.co/1arDHxm05X>

The end (of life) is near for Microsoft Windows Server 2003

July 14, 2015 is likely weighing heavily on the minds of millions of users, primarily business users, who rely on Windows Server 2003 environments. As of that date, Microsoft will no longer provide any updates to support, modify or secure the 12-year-old operating system.

<http://t.co/evyvKYfuSA>

Apple's iCloud service up and running following outage

Apple's iCloud services are back up and running after a widespread outage prevented users from accessing their email and backup services on 21 May. According to Apple's system status page, the service disruption affected 40 per cent of users. The company did not specify the cause.

<http://t.co/xhmkISyXcp>