the Availability Digest

@availabilitydig – Our August Twitter Feed of Outages
August 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.

FCC to extend service outage reporting to subsea systems

The United States' Federal Communications Commission (FCC) plans to extend mandatory reporting on service outages to submarine cable systems. More consistent reporting on submarine cable outages will improve the FCC's ability to spot trends, address systemic issues, and inform policy making. If the new rules are approved, submarine cable licensees will be required to report significant outages in detail through NORS, the system used by other communications providers to report outages.

http://t.co/AX8tQSPaeU

Barclays just became the first UK bank to support bitcoin

One of Britain's biggest high-street banks is about to take the first step in bringing bitcoin, the controversial digital currency, into the mainstream, saying it has the "potential to change financial services." Barclays has been conducting experiments into bitcoin in "labs" in London and is working with start-ups. It now plans to test the virtual currency by allowing people to make donations to charities in bitcoin.

http://t.co/0sSLoogs2D

Failed software upgrade leads to confusion over price of recent trades

NY Mellon Corp.'s recent computer snafu in calculating the prices of mutual funds and exchange-traded funds extended into the weekend of 29/30 August and prolonged confusion over the price of recent trades and any potential compensation owed. On Thursday afternoon, SunGard apologized to BNY Mellon and its clients for a glitch that happened during a systems upgrade. SunGard hosts an accounting platform that helps BNY Mellon operations calculate net asset values for its funds' clients.

http://t.co/DKppxFXU48

HSBC systems failure delays 275,000 payments

HSBC has apologised for a payments software failure that prevented thousands of people in the UK from receiving their pay cheques before the late August bank holiday weekend. HSBC said the problem was caused by a flaw in information included in a file submitted on Thursday night to BACS, the system British banks use to process millions of direct debits and direct credits.

http://t.co/denywIAjA4

Lightning strikes wipe Google data

Google says data was wiped from discs at one of its data centres in Belgium after the local power grid was struck by lightning four times. Some people permanently lost access to the files on the affected disks as a result.

http://t.co/eOXb9Xbpnw

Software limits exposed in air traffic outage

The outage of a high-profile air traffic control system is exposing the difficulties of managing the ever-expanding software networks keeping the United States' critical infrastructure afloat.

http://t.co/6rKaRawXFR

Why an Active/Passive Business Continuity Architecture is Not Good Enough

Many companies are operating with the mistaken belief that their business continuity plans will work when the time comes or that even if they do work, the plan will be good enough to prevent significant consequences to the company. Read this article by Gravic, Inc.'s Keith B. Evans to find out whether such a false sense of security applies to you.

http://t.co/mvGi8pCroG

Linux Foundation Funds NTP's 'Father Time'

The Network Time Protocol will keep Harlan Stenn, its chief maintainer, working for another year. But the 12-month commitment, as well as other funding decisions, raises the question of whether the Linux Foundation is hedging its bets on NTP.

http://t.co/AqhwRf5VVa

Can failover clusters offer instant BC/DR? Not so fast

DR/BC planning remains a challenging undertaking that companies must perform if they want to survive the interruption events that may represent only 5% of outages but 100% of financial disasters. You shouldn't deceive yourself about probabilities or frequencies of disaster events. Prepare for the 5%, and you will also be able to cope with the other 95%.

http://t.co/x8AYA3Qxez

Disaster Recovery Report Highlights DRaaS Adoption Roadblocks

Despite the emergence of disaster recovery as a service (DRaaS) solutions, companies have been slow to adopt them because of the perceived high cost of on-demand failover solutions, lack of sufficient IT resources, and DRaaS not being a key business priority.

http://t.co/7eqXE2HWFZ

Google Suffers Compute Engine Cloud Outage

Google whacked its users with a cloud outage in the middle of August, with the provider's Compute Engine Infrastructure-as-a-Service platform going down for some users for several days. The problem originated from Google's Persistent Disk (PD) storage systems, the primary storage platform for its customer virtual machine instances.

http://t.co/RNJNi0pbla

Flight delays at D.C., New York airports

The U.S. Federal Aviation Administration said Saturday 15 August that it was working to "minimize impacts to travelers" after a computer glitch caused flight delays and cancellations along the East Coast. Airports in the Washington and New York City areas were hit hard.

http://t.co/ZTaX1UFzBM

Avoid outages and achieve the fabled 'four nines'

Near-perfect uptime is actually possible. For some businesses, it may be too expensive to make everything 100 percent available all of the time; but it is important that businesses recognize what aspects of their online services must be available to ensure they run smoothly and without fault.

http://t.co/otfrl3hcc4

Air conditioning leak takes down university data centre

Queen's University in Kingston, Ontario, saw its main data centre taken offline after an air conditioning leak activated the fire suppression system. The leak sprayed compressor oil resembling smoke in a fine mist over the data centre equipment. As a result, the fire suppression system was triggered into action and removed all of the oxygen from the facility. The system response damaged all of the data centre fire detection sensors, which will need to be fully replaced.

http://t.co/ym1Fl3SPaN

How the cloud will get you better IT uptime

Last month, an issue with United Airlines' information systems grounded airplanes across the country for over an hour. The root cause according to the airline? A failed network router. It may come as a surprise that a Fortune 100 company with almost $39 billion in annual revenue and a $21 billion market cap can have its global operations disrupted due to the failure of a single device. Those of us that have worked in large enterprises with legacy IT infrastructures, however, know that such outages aren't uncommon.

http://t.co/jmds63icin

VMS Software Partners with Stark Gaming to Create Online Gaming and eSport Server Infrastructure with 100% Uptime

VMS Software, Inc. and Stark Gaming, Inc. today announced a partnership to create a new server infrastructure to solve problems in the online gaming and eSports industry. Using VMS Software's OpenVMS Operating System and Stark Gaming's new PC video game, Memories of Havark, they will create a backend server environment with the intent of 100% uptime, global scalability, low cost of ownership and state of the art security.

http://t.co/6sDA5thNDl

Organizations face increasing demands for "always on" availability. How are they faring?

From the July 2015 Availability Digest: Organizations face increasing demands for "always on" availability. How are they faring? A 2014 survey1 by Veeam Software (http://www.veeam.com/), a provider of data center availability products, explores this topic.

http://t.co/bpmKkBaui8

Amazon S3 issues at the center of Monday morning snafu

AWS customers' ability to launch new instances in the US-East region was affected by an uptick in error rates on the Simple Storage Service, according to Amazon's status page.

http://t.co/9LO03GTLoG

China-Tied Hackers That Hit U.S. Said to Breach United Airlines

The hackers who stole data on tens of millions of U.S. insurance holders and government employees in recent months breached another big target at around the same time -- United Airlines.

http://t.co/HFu9Dq7FHp

Are You Falling Down the Availability Gap?

The gap between the expectation and the reality of IT availability is costing businesses millions.

http://bit.ly/1JUq0oK

Nearly 1 billion phones can be hacked with a single text message

A mobile security researcher has uncovered a flaw that leaves as many as 95% of Android devices—that's 950 million gadgets—exposed to attack. The computer bug, nicknamed "Stagefright" after a vulnerable media library in the operating system's open source code, may be one of the worst Android security holes discovered to date. It affects Android versions 2.2 and on.

http://t.co/0mnjO4PZ6j

@NYSE Outage Shows How Essential Is Business Continuity Planning

Few organizations in the world move at a more blistering pace than the New York Stock Exchange (NYSE). Much of the trading action these days happens machine to machine, not human to human. While machine trading has advantages, namely speed, it also means that a technical glitch like the one that happened to the NYSE on July 8th can bring everything to a screeching halt. That has led to a great deal of analysis, concern and reflection from those who work in financial services.

http://t.co/w6QVpDjeS8

Why Amazon's recent outage was a networking issue and how to prevent it

The brief outage AWS suffered late last month exposed the dependence of countless enterprise applications on a few cloud components. A route leak from data center provider Axcelx was responsible for this incident. This is not a new problem. Route leaks caused by incorrect BGP advertisement have resulted in much larger outages.

http://t.co/1i4cuLNr3c

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Power systems failure led to Ambulance Tasmania communications outage

Three back-up systems failed simultaneously when Ambulance Tasmania was plunged into a critical power failure. Despite the fault happening in only one of the back-up systems, it knocked out all three back-ups, including a recently bought generator. An operational review found deficiencies in documentation, planning and training for such events.

http://t.co/tLyjUPRxK9

United Airlines and NYSE troubles are homegrown

The tech meltdowns in July at the New York Stock Exchange and United Airlines highlighted our infrastructure vulnerabilities and prompted fresh fears of cyber-terrorism. Yet further examination revealed both United and the NYSE identified internal technology issues as the root causes of their problems. United offered scant details beyond a router issue hampering network connectivity for many of their software applications. The NYSE was more forthcoming. Its relatively detailed explanation pinpointed the greatest threat to our technology infrastructure: bonehead moves.

http://t.co/SbVLf9fmnP

9 Small Companies Poised to Reshape HPC Hardware

It is no simple task to "break into" high performance computing where the contracts are large and the need for (as near to) guarantees is critical at scale. This article singles out a few key small companies that are taking their chances to bring new processors and server gear to the supercomputing table.

http://t.co/avTS0tPMr2

How Africa gets power to 620 million more people could have a huge influence on our world

Chronic shortages of power affect the whole of sub-Saharan Africa. Almost 620 million people - 60 percent of the region's population — lack access to electricity. This lack of power matters.

http://t.co/jrjsyjOlqQ

Digest Managing Editor Bill Highleyman's favorite equation: Probability (system down) = (1 - a)[1 - (a - mtfo/mtr - d)]

See equation on page 6 of "Why Are Active/Active Systems So Reliable?" Active/active systems do not really fail over. They simply resubmit the failed work to a known operating node. Resubmission may be done externally by the client or internally by the system. The bottom line is that active/active systems achieve their high availabilities via the philosophy of "Let it fail, but fix it fast."

http://t.co/75ZWGYfHrk

US visa system back online after major outage

The U.S. Department of State is back in the business of issuing visas after a computer system failure this summer abruptly stopped work at consulates worldwide and inconvenienced hundreds of thousands of travelers.

http://t.co/LMN11gHxvp

Here's another of Murphy's Technology Laws: There is never time to do it right but always time to do it over

Murphy's Law ("If anything can go wrong, it will") was born at Edwards Air Force Base in 1949 at North Base. It was named after Capt. Edward A. Murphy, an engineer working on Air Force Project MX981, (a project) designed to see how much sudden deceleration a person can stand in a crash. One day, after finding that a transducer was wired wrong, he cursed the technician responsible and said, "If there is any way to do it wrong, he'll find it." The contractor's project manager kept a list of "laws" and added this one, which he called Murphy's Law.

http://t.co/wttbFd8oV8

Here's one of Murphy's Technology Laws: Technology is dominated by those who manage what they do not understand

Here are two more Laws for your reading pleasure. 1) To err is human, but to really foul things up requires a computer. 2) Computers are unreliable, but humans are even more unreliable. Any system which depends on human reliability is unreliable.

http://t.co/wttbFd8oV8