the Availability Digest

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@availabilitydig – Our August Twitter Feed of Outages

August 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.

The Dutch have solutions to rising seas. The world is watching.

In the waterlogged Netherlands, climate change is considered neither a hypothetical nor a drag on the economy. Instead, it's viewed as an opportunity.

https://t.co/CaqBswfyMA

"Baseload": An outdated term that should not be confused with "reliability"

The "coal versus no new coal" debate has come to define the battle lines over Australia's energy future. It can basically be boiled down to one concept: the assumption that we have to rely on baseload power for the reliability and security of our electricity supply. A new report from the US highlights how the concept of "baseload" is really just an artefact of an old industry and points out that baseload should not be confused with reliability. The two do not go hand in hand, and hanging on to the term is getting in the way of planning for the future.

https://t.co/Z4BwwL07Xe

The Seven Deadly Sins of BDR

Many businesses think they have a proper business continuity plan in place but may be falling victim to one or more of seven deadly BDR (Backup and Disaster Recovery) sins that can cause significant problems when disaster strikes and data needs to be recovered.

https://t.co/nFKxaUogpQ

From the Availability Digest - "Carbonite – The Online File Copy Utility"

The online copy service used by Dr. Bill Highleyman is Carbonite (www.carbonite.com). "Carbonite has saved me on many occasions. There have been times when I have accidentally deleted a file and couldn't restore it. At other times, I have corrupted a file by removing records inappropriately or by modifying records with garbage. In all of these cases, I was able to go to Carbonite and retrieve a good copy of the file. All I had to do was to view the list of files stored online by Carbonite, click on it, and click 'Restore.'" Another feature of Carbonite lets you restore all files.

http://bit.ly/2s6pkag

R3's Corda enters beta, partners with HP Enterprise

Distributed ledger technology builder R3 has announced the public beta of Corda this week as well as a partnership with HP Enterprise (HPE). HPE demonstrated Corda running on the HPE Integrity NonStop Platform. Proving deployment of Corda on HPE's NonStop platform, on which so many of the world's most trusted companies run their most important applications, is a major step forward, R3 said in statement.

https://t.co/2oD8cc062i

Brooklyn's Latest Craze: Making Your Own Electric Grid

When Michael Guerra, a blunt-talking Brooklyn real estate broker, installed 24 solar panels on his Park Slope rooftop in 2012 during a home renovation, all he knew was that he liked the idea of being able to supply his own green electricity and to run his air conditioning in the summer without paying exorbitant charges. So he got as many panels as his utility and the state would allow. Then one day in 2016, he got a knock on his door. A man asked him if would like to join a microgrid that would permit renewable energy users like Guerra to sell power directly to their neighbors.

https://t.co/JWstORYveu

It's not just you: CNN, New York Times, Reddit, and other sites are all down

A strange outage struck a number of extremely popular websites on 28 June, bringing The New York Times, CNN, Reddit, Pinterest, Etsy, and Amazon to their knees in many areas of the United States. The downtime slammed the coasts particularly hard, with huge numbers of reports coming in from both the East Coast as well as Southern California. The issue appeared to be linked to the cloud hosting service Fastly, which supports the backends of all these major web destinations, and was dealing at the time with a "global event."

https://t.co/fjmQStACtU

Massive cyberattack hits Europe with widespread ransom demands

A new wave of powerful cyberattacks hit Europe and beyond in late June in a possible reprise of a widespread ransomware assault in May. Cyber researchers say that the virus, which was linked to malware called Petrwrap or Petya, used a U.S. National Security Agency-developed "exploit" that was later leaked onto the Internet by hackers. It is the second massive attack in the past two months to turn powerful U.S. exploits against the IT infrastructure that supports national governments and corporations.

https://t.co/9I2oiPG7Ew

Cyber attack hits oil giant and banks in Russia and Ukraine

Russia's top oil producer Rosneft said a large-scale cyberattack hit its servers in late June, and computer systems at some banks and the main airport in neighboring Ukraine were also disrupted.
A Moscow-based cyber security firm, Group-IB, said it appeared to be a coordinated attack that simultaneously targeted victims in Russia and Ukraine.

https://t.co/48SnZWt9pL

60K Spectrum Customers Lose Internet in Queens After Vandals Cut Fiber Optic Cable

About 60,000 Spectrum customers in Queens, New York, were without cable or internet recently after vandals cut a fiber optic cable serving four major hubs. Spectrum was working to restore cable, internet and phone services to thousands of customers more than 15 hours after vandals cut the fiber optic cable.

https://t.co/ki0H7GRb5J

Know Your SLAs

The Service Level Agreement (SLA) is a contractual agreement between a service provider and customer. It defines the expected level of service delivered by a service provider. The purpose of an SLA is to specify and define what the customer will receive as part of the service. SLAs do not define how the service itself is provided or delivered. The service implementations may change during the term of the SLA.

https://t.co/D2BvhOpjtw

China turns on the world's largest floating solar farm

Recently, workers switched on a solar energy plant capable of producing 40 megawatts of power. The plant floats on a manmade lake in China's Anhui province near the city of Huainan. The array is the largest floating solar project in the world; though at the brisk pace China is building new renewable projects, it's unlikely to hold that title very long.

https://t.co/Z8rUQFojUO

Legacy backup vs cloud data management

Nobody likes change, but sometimes change is necessary for improvement. Backup should be simple, scalable and cost effective - things that are not always delivered simultaneously with legacy solutions. Be brave and step into the unknown by embracing cloud data management and empower your business to do more.

https://t.co/Yoj625NK79

The Convenient Connection Between Wall Street and Fat-Finger Trades

A fat-finger trade/error is a keyboard input error in the stock market or FX market whereby an order to buy or sell is placed of far greater size than intended. That is it. Sounds simple, doesn't it? However, rarely do fat-finger errors occur that cause the stock market to go nuts on the upside. Fat-finger errors seem to be exclusively reserved to create a massive whoosh lower in a particular stock, usually widely held, which helps take the overall markets down as well with it.

https://t.co/lWMeA1FjBK

Californians alerted to a powerful earthquake ... that took place 92 years ago

The U.S. State of California was sent into a panic on June 21st when the Los Angeles Times reported that a powerful 6.8 earthquake had rocked the state. Such a quake did happen, but it happened in 1925. An embarrassed LA Times was forced to admit that a robot, cheerily called "Quakebot," had both written and published the report by mistake.

https://t.co/DcCXGDqn9K

Blackouts in Ukraine were just a trial run. Russian hackers are learning to sabotage infrastructure

In Ukraine, the quintessential cyberwar scenario has come to life. Twice. On separate occasions, invisible saboteurs have turned off the electricity to hundreds of thousands of people. Each blackout lasted a matter of hours, only as long as it took for scrambling engineers to manually switch the power on again. But as proofs of concept, the attacks set a new precedent: In Russia's shadow, the decades-old nightmare of hackers stopping the gears of modern society has become a reality.

https://t.co/3ntI7c2Wq1

Hardware issue causes digital banking outage at PNC

Customers at PNC Financial Services in late June were unable to access their online and mobile banking accounts for several hours because of an unspecified issue with the company's technology. The outage is the latest in a string of recent tech glitches affecting big banks across the industry.

https://t.co/BD2hbRBhQ4

Not all N 1 configurations are equal

Often lost in the noise of the debate is that all N+1 systems are not alike. This is important because the right N+1 configuration can make a big difference in capital costs and deployment time. To the uninitiated, N+1 is one of several approaches around planning and developing redundancy of utilities, in this case, for IT systems such as data centres. It can be applied to several utilities, e.g., cooling. But in this article, it will be discussed as a power supply metric.

https://t.co/HzVYaQhzKY

NYC Looks to Make Its 911 System Fully Digital

New York City is working to make its 911 system fully digital, which in practical terms means that residents will be able to interact with emergency responders through text messages, photos, videos, social media and other state-of-the-art methods of communication.

https://t.co/GloPRF67Gj

Meeting Continuous Power Needs

Pacific Gas & Electric Co. (PG&E), one of the U.S.' largest utilities, operates in a region where outages are not tolerated. To minimize customer outages, particularly during periods of transmission and distribution (T&D) infrastructure changes and upgrades, PG&E relies on mobile power generation resources to inject power into those constrained sections of grid undergoing upgrades.

https://t.co/PmYukgm8Jb

Syria opens its first solar-powered hospital aiming to save more lives

Syria's electrical grid has taken a big hit after six years of a volatile civil war with most of the electrical infrastructure bombed, dismantled or destroyed and leaving hospitals relying on diesel generators but at the mercy of fuel shortages. So the Union of Medical Care and Relief Organizations (UOSSM), an international coalition of international medical organizations and NGOs, said it hoped the creation of the country's first solar-power hospital will save lives.

https://t.co/ncrhcrAVWu

The Race to Solar-Power Africa

Electrifying Africa is one of the largest development challenges on earth. There are about as many people living without electricity today as there were when Thomas Edison lit his first light bulb. More than half are in sub-Saharan Africa. Europe and the Americas are almost fully electrified, and Asia is quickly catching up; but the absolute number of Africans without power remains steady.

https://t.co/s2TsV74Sht

Can Congress establish a backup for GPS before it's too late?

The U.S. Coast Guard Authorization Act is up for renewal in Congress, and a provision in the House proposal requires the establishment of a backup for the Global Positioning System (GPS) called “eLoran.” The proposal could help to end almost 20 years of back and forth between administrations and Congress.

https://t.co/8FG96w0KfH

Record-breaking heat proving to be taxing for California electrical grid

In June, thousands of residents of the U.S. State of California were left without power. The state-wide outage occurred during a record-breaking heat wave that overstressed the power grid.

https://t.co/GwqnZtPFTP

Facebook is planning to move WhatsApp off IBM's public cloud, source says

Facebook's WhatsApp messaging service, which is used by 1.2 billion people across the globe, is planning to move off of IBM's cloud and into Facebook's own data centers. The WhatsApp move, which could begin later this year, will result in IBM losing a high-profile customer for its public cloud. A source claims that WhatsApp has been one of IBM's top five public cloud customers in terms of revenue and was at one point spending $2 million a month with IBM.

https://t.co/Cbbzd6ViE1

Why do legacy and cloud mix well?

Scott Jeschonek, Director of Cloud Solutions at Avere Systems, thinks that while oil and water don’t mix, legacy and cloud do in comparison. In spite of the hype about moving applications to the cloud and about turning legacy applications in cloud-natives, he finds that legacy systems are alive and well; and he believes they aren’t going to go anywhere anytime soon.

https://t.co/r47meWEQH7

CIOs say IT can better back up their organizations

CIOs say there is always a struggle when deciding to invest in improving legacy systems versus implementing new, innovative technology. They say it is a tough job. They say that disaster recovery and business continuity plans often end up at the bottom of the budget priorities list. At the same time, they assert that IT cannot be the endpoint here. Business continuity means training the entire business to respond.

https://t.co/luFyVw2AMa

A Republican voter data firm likely exposed your personal information for days — and you don't have much recourse

To any nefarious hackers looking for information that could be used to sway elections or steal Americans' identities, the file compiled by a GOP data firm called Deep Root Analytics offered all manner of possibilities. There in one place was detailed personal information about almost every voter in the U.S. It was a collection of some 9.5 billion data points that helped the firm assess not only how those Americans would probably vote but also their projected political preferences. It's the kind of sensitive information that if a bank or a big-box retailer or almost any other corporation had failed to protect it, would have triggered major trouble with regulators. But there it sat on the Internet without so much as a password to guard it - for 12 days.

https://t.co/4GJAvcMVJr

US government awards millions to HPE, Intel, and others in hopes they'll build next-gen supercomputers

To try and edge the United States ahead of other countries in the arms race of building supercomputers, the Department of Energy recently awarded a total of $258 million in funding to HPE, Cray, AMD, Intel, IBM, and Nvidia. The money will be put toward developing exascale computers, which are capable of a billion calculations per second. The $258 million in funding will be allocated over a three-year contract period. Each company also agreed to provide at least 40 percent of their individual total project costs for a total investment of $430 million.

https://t.co/6qyLKC1kvu

It's time to update XP, Windows Server 2003 despite Microsoft's emergency patch

Microsoft ended support for Windows XP in April 2014 and Windows Server 2003 in July 2015, but there are still over 100 million legacy Windows systems still in use around the world. It makes perfect sense, then, to worry about the possibility of widespread attacks against legacy systems when ShadowBrokers revealed three hacking tools utilizing vulnerabilities in older versions of Windows.

https://t.co/HxjosWsFNh

The History of APIs and How They Impact Your Future

It's hard to imagine what the world would be like without APIs, but it's safe to say that our everyday lives would look very different without this concept at work behind so much of the technology we take for granted. In this article, we'll delve into API history and look at industry-specific examples of how API integration fuels today's innovations. Whether you're an IT manager, developer or someone simply working in the industry who is curious about this topic, the following will tell you everything you need to know about the history.

https://t.co/9w36LwycXt

Banking glitches a growing trend globally

During June's "internal data processing error" of the Bank of Philippine Island (BPI), some of its account holders saw their balance statements ending more than double (P600 to P600,000) or to a preposterously high level of P12 billion. That was the surprise "fun" part, especially for those who saw their balances change for the "better." But for those that saw their account balances bottom out or even change to negative, it definitely was horrific. And with social media at its best behavior nowadays, BPI's internal glitch turned out to be an overnight sensation.

https://t.co/6SXd7ZO0eo

Why can't security have SLAs?

You always hear about the five-nines. The typical amount of time laid out in a service-level agreement that a network should be online. Can that same premise pertain to security? Vendors say no. Despite that sentiment, let's play a game of what-if. What if a parameter could be placed on a third party for security? What would it look like?

https://t.co/5rLzwNuWgx

Modernizing Core Architectures in the Digital-Transformation Economy

We've heard the term *digital transformation* used almost to the point of exhaustion in the past couple of years, but it's not just a lot of hot air: it's the future. It is predicted that digital transformation will attain macroeconomic scale over the next three to four years, changing the way enterprises operate and reshaping the global economy. According to research company IDC, "By 2020, 50 percent of the Global 2000 will see the majority of their businesses depend on the ability to create digitally enhanced products, services and experiences."

https://t.co/ZIyQXOyXqT

True Story of the Microgrid that the Navy Built - Electric Light & Power

So much of today's discussions around microgrids have made the concept seem complex, expensive, and infeasible without generous government support. But in truth, microgrids—defined here as islandable loads connected to onsite power resources—have existed long before the term itself gained traction in the late 1990s. The benefits of resiliency and islanding capability far exceeds their cost: in short, these microgrids work. Even as we look at contemporary, renewable-powered microgrids, we find many examples of inexpensive and effectively islanded power networks.
One example of this is the modest microgrid at IMPEL, the Integrated Multi-Physics Energy Laboratory at the Naval Postgraduate School (NPS) in Monterey, CA.

https://t.co/Ui7VlE6EcD

Quake-Prone Pacific Rim Cities Upgrade to Recover Quickly

Earthquakes are a fact of life in Pacific Rim countries, but most are small shocks that don't do much damage. But a major quake - one registering more than 6.0 on the open-ended Richter scale - can devastate communities, even those that have prepared for disaster. In many urban centers around the Pacific Rim, it could be weeks or a month - or more - before water service gets restored after a major earthquake - not to mention electricity, sewage and fuel supplies too. Therefore, leaders on both sides of the Pacific are being forced to make cost-benefit choices.

https://t.co/jwCdgUVr9M

IT Resiliency: A move beyond simple DR

The IT industry is no stranger to buzzwords. Poke around most technology websites, and you'll find industry jargon galore. Occasionally, one term pushes through the noise, becoming a topic that is on everyone's agenda. IT resiliency is most definitely the new kid on the block, having permeated the minds of IT professionals and C-suites alike. So what actually is it, and why should we care?

https://t.co/CX5QS3Tdo0

Avoiding an outage disaster: continuous availability

The IT failure that caused chaos for thousands of passengers travelling on British Airways could have been avoided with a continuous availability architecture.

https://t.co/Tgh4CPqDom

'These Are Historic Days'. Russian Scientist to Launch Data Centre Into Orbit

A Russian businessman is readying to launch a data centre into space in August this year in what is certainly one of the most ambitious projects the data centre industry has seen in recent times. The project is part of a much larger idea which started in 2016 with the announcement of the development of a pacifist nation-state in space.

https://t.co/A4C1afL4fW

The hidden cost of "Dark DR:" The economic argument for active/active operations

For decades, Disaster Recovery (DR) has dominated the landscape as the best architecture for business continuity. The problem is that DR expects you to have a disaster and then to recover from that disaster. Because that capacity sits idle until disaster strikes, many customers call that "Dark DR." In today's digital business world, of course, disasters aren't tolerated well. A majority of organisations cite considerable loss to revenue and/or reputation if their online offerings go down. Rather than build DR structures, organisations today need to design for Continuous Availability. Continuous availability, in turn, requires active/active architectures.

https://t.co/EyRtIrsrcf

ATO warned about HPE hardware failure six months before meltdown

The Australian Taxation Office (ATO) is rebuilding its internal IT infrastructure capability after two outages of its outsourced storage environment exposed poor system design and maintenance. Most of the high-level technical causes and system design issues for the December 2016 outage were revealed in June, including improperly fitted cables, inactive monitoring tools, and a SAN design that promoted performance over stability and resilience. It also was revealed that the second major meltdown in February was the result of human error as HPE technicians tried to replace SAN cabling. One damaging revelation is that the SAN configuration had been experiencing issues for six months prior to the first meltdown and that the ATO had been kept in the dark over the severity.

https://t.co/PoCaecJmYU

Linux server attack: Patch Samba or risk cryptocurrency mining malware

Attackers are free-riding Linux servers with an unpatched Samba bug to mine for the monero cryptocurrency. Instead of installing ransomware, the Samba attackers install a cryptocurrency miner to turn a profit from Linux machines in the form of the monero, an alternative to bitcoin that is less computationally demanding to mine.

https://t.co/wLDctMiuoV

Researchers have found the first real-world malware that attacks physical infrastructure since Stuxnet

A week before last Christmas, hackers struck an electric transmission station north of the city of Kiev, blacking out a portion of the Ukrainian capital equivalent to a fifth of its total power capacity. The outage lasted about an hour—hardly a catastrophe. But now cybersecurity researchers have found disturbing evidence that the blackout may have only been a dry run. The hackers appear to have been testing the most evolved specimen of grid-sabotaging malware ever observed in the wild.

https://t.co/pscLd32QIX

Hit-and-Run Drone Collision Causes Power Outage for 1,600 in Google's Hometown

The increasing prevalence of drones in our skies and streets is going to usher in some spectacular benefits as well as some unintended consequences. The technology is already way ahead of the law. In June, 1,600 people in the Silicon Valley city of Mountain Vi8ew lost their electricity when a man flew a drone into a high-voltage wire. The power outage lasted about three hours and cost "tens of thousands of dollars."

https://t.co/qTJf2sHyrf