

the **Availability Digest**

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@availabilitydig – Our February Twitter Feed of Outages

February 2018

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 Pentagon still uses computer software from 1958

In 1958, the DoD's first contracting software was launched using an early computer language called COBOL. As of 2017, that software still manages Pentagon contracts. According to [Technology Review](#), the program known as MOCAS, Mechanization of Contract Administration Services, began its life on punchcards. Eventually, it was updated to green screened, terminal-style computers. Though a new-looking graphic interface often replaces the antiquated green text prompts, the insides are still very much the same. A series of new additions and plug-and-play storage devices hide an eight-gigabyte RAM system that manages \$1.3 trillion in Pentagon contracting. The reason the system was never replaced is due to the fact that its replacement would have to immediately take over the entire system as a whole to ensure that no contract — and none of the money — is lost in the transition.

<https://t.co/pDpVcv0QIW>

The hidden challenges of modernization

In the next three years, an estimated UDS \$3 billion worth of U.S. Federal IT equipment will reach end-of-life status. It's an intimidating number and one that indicates just how far-reaching the need is for modernization. With so much focus on the sheer cost of mass obsolescence, many agencies overlook the opportunities that modernization presents and treat it as an obstacle that must be overcome.

<https://t.co/zzRv4Wik3z>

Stephen Hawking's Institute Will Use Supercomputers to Uncover Secrets of the Universe

Though there are still many mysteries of the universe that remain and which we look forward to solving with the next biggest breakthrough or discovery, a new joint effort between Hewlett-Packard Enterprise's (HPE) newest supercomputer and the Center for Theoretical Cosmology (COSMOS), Stephen Hawking's research group, hopes to come one step closer to doing this.

<https://t.co/g08SMjywJm>

Report: Software failure caused \$1.7 trillion in financial losses in 2017

Consumers and businesses depend on software every day for a variety of functions; and when bugs strike or errors occur, the consequences can be staggering. In a recent report, software testing company Tricentis analyzed 606 software fails from 314 companies to better understand the business and financial impact of software failures. The report revealed that these software failures affected 3.6 billion people and caused \$1.7 trillion in financial losses and a cumulative total of 268 years of downtime. Here are five takeaways from the company's Software Fail Watch 2017 report.

<https://t.co/ypRAq6Y4rf>

Facing Down the Legacy Software Dilemma

We often hear that younger firms are likely to invest more on technology than older and established firms. The truth is that older firms are willing to spend the big bucks to upgrade their infrastructure, but there's a complication. The challenge for established firms is upgrading portfolio accounting and reporting legacy software that contains many years of transactional data for thousands of accounts. With so much important client data at stake, advisors attempt to tackle the legacy dilemma by keeping their current technology.

<https://t.co/edvN86HLw5>

World's Largest Offshore Wind Farm Starts Construction

Offshore construction has kicked off at what will become the world's largest offshore wind farm, the Hornsea Project One. The first of 174 monopiles, or foundations for offshore wind turbines, has been installed at the site, located off the Yorkshire coast in the United Kingdom. The project, developed by Danish energy giant Ørsted (formerly called Dong Energy), is expected to be fully operational by 2020 and will have a capacity of 1,200 megawatts, or enough power for more than one million UK homes. To compare, the London Array, currently the largest offshore wind farm in the world, has a 630-megawatt capacity, or enough to power about half a million homes.

<https://t.co/v6hqtsPB3O>

Microsoft issues emergency Windows patch to disable Intel's buggy Spectre fix

If you've noticed any unexpected reboots or PC instability as a result of the recent Spectre patches, there's a solution. Microsoft has issued an emergency Windows patch that rolls back the recent Spectre mitigations. Microsoft's latest patch (KB4078130) allows people with affected systems to download the patch via the Microsoft Update Catalog.

<https://t.co/JzaZYX6uCM>

Majority of local authorities still running Windows 7, as end of life two-year countdown begins

Despite 97% of local authorities being aware of Windows 7's end of life in January 2020, nearly a fifth (17%) are yet to plan a migration away from the operating system, a Freedom of Information Act (FOIA) request has found. The research, which includes responses from 317 councils, highlighted the fact that despite the issues encountered by those using legacy operating systems such as Windows XP, not enough is being done to adequately prepare for life beyond Windows 7.

<https://t.co/kAKAtJxGnV>

Interesting FYI. Overall, the U.S. Internal Revenue Service (IRS) maintains over 20 million lines of assembly code.

The Internal Revenue Service's claims it needs more funding to address aging IT infrastructure; but lawmakers say before the tax agency can ask Congress to show them the money, it must first show appropriators a plan.

<https://t.co/AOBqeH3e9V>

IRS clutches its modernization holy grail

2018 could be the year the IRS crosses the final frontier in its 25-year modernization drive.

At the moment, the agency has a short-term crisis. It has to translate the complicated new tax law into computer code. Its programmers must find all of the lines affected among millions of lines of code. Their challenge is mainly time and scale. The agency does some code revision every year. But the scope this year is much larger than anything since the Reagan-era tax reforms...plus the underlying code has 36 more years' worth of alterations preceding these changes. IRS also needs new forms, new advisories, new instructions, and new training for its people.

<https://t.co/X4ut5hwm3C>

How T-Mobile is using containers in production to increase uptime and save money

After a year of running containers in production, T-Mobile recently felt comfortable enough before a crowd of Seattle techies to give them a peek behind the curtain at its live production systems. T-Mobile engineers showed attendees the monitoring dashboards of T-Mobile's containerized applications. They showed how T-Mobile can replicate its entire cloud infrastructure running in Oregon on AWS servers over to the US-East region in about seven minutes, a process that could take up to six hours for applications that aren't running in containers.

<https://t.co/m05NeKlAc8>

What is a proxy server?

A proxy server is an intermediary server that functions via software on a computer to serve information to the end user without revealing the identity of the person performing the lookup. This could be a web page, a file, a connection or another type of request. When a request is usually made to the Internet, the user's identity (their IP address) is sent to the location of the information. For example, if a search is made using Google, the user's IP address is sent to Google so it knows where to send the information back. Proxy servers are used to protect the requester and the information source from each other by preventing this information from being shared.

<https://t.co/g37q1qVjli>

Edge Computing vs. Cloud Computing: What's the Difference?

The term cloud computing is now as firmly lodged in our technical lexicon as email and Internet, and the concept has taken firm hold in business as well. By 2020, Gartner estimates that a "no cloud" policy will be as prevalent in business as a "no Internet" policy. Which is to say no one who wants to stay in business will be without one. You are likely hearing a new term now, edge computing. One of the problems with technology is terms tend to come before the definition. Technologists (and the press, let's be honest) tend to throw a word around before it is well-defined, and in that vacuum come a variety of guessed definitions of varying accuracy.

<https://t.co/ofaYPSDG1i>

How Just One Simple Human Error Almost Destroyed a Missile Submarine

The modern submarine is not a simple machine. A loss of propulsion, unexpected flooding, or trouble with reactors or weapons can doom a sub crew to a watery grave. Also, it's a good idea to close the hatches before you dive. Call it a lesson learned for the Indian navy, which managed to put the country's first nuclear-missile submarine, the \$2.9 billion INS Arihant, out of commission in the most boneheaded way possible.

<https://t.co/hBtfat3HwY>

Russia Lost a \$45 Million Weather Satellite Due to Human Error, Official Says

The loss of a \$45 million Russian weather satellite last November was due to human error, a high-ranking official said, because the satellite's programming was set for the wrong launch site. The programming for the satellite, called Meteor-M No.2-1, included instructions based on the satellite launching from the Baikonur Cosmodrome in Kazakhstan, east of Russia. Baikonur is a frequent launch site for satellites and astronauts. However, Meteor-M launched from the new Vostochny launch site in eastern Russian.

<https://t.co/NDCvORJFaj>

A rare look inside Apple's expanding Reno data center

Like unicorn sightings and solar eclipses viewed from the same exact spot, getting an inside look at an Apple data center is a rare occurrence. Chalk it up to trade secrets and other sensitive information. That and the fact that you probably don't want people tripping around a facility that hosts crucial data for Apple's various services. If you're itching to see what it looks inside a facility that makes it possible to send those iMessages or pester Siri with all sorts of questions, the Reno Gazette-Journal recently had a chance to tour Apple's Reno data center.

<https://t.co/QP9saZCRyC>

Incidents in Manchester and Wales mean NHS hit by two major IT failures in 24 hours

Manchester University NHS Foundation Trust said it was forced to postpone some operations and rearrange some outpatient appointments following a four-hour outage at several of its sites in January. The trust was forced to implement "well-rehearsed business continuity plans." IT systems were back up and running approximately four hours later.

<https://t.co/pNnS7GTvAV>

Data Center Uptime on the Line: What is Your Switchgear Doing?

Although generators offer backup in the event of a short power disturbance, optimal facility uptime requires a reliable power distribution system – of which switchgear is the backbone.

<https://t.co/2lzKfcsRKh>

From Gravic Shadowbase: Switching Replication Engines with Zero Downtime and Less Risk

Switching replication engines with zero downtime is a topic with immense complexity. In this paper, we discuss how a data replication engine can be changed or upgraded without taking either the application or the database offline.

<https://shadowbasesoftware.com/white-papers/2018/01/switching-replication-engines-with-zero-downtime-and-less-risk/>

Cloud service provider failure could cost \$15bn, says Lloyd's

A new report from the Lloyd's of London insurance and reinsurance market in collaboration with catastrophe risk modeller AIR Worldwide reveals that businesses in the U.S. could lose as much as USD \$15 billion were a leading cloud service provider to experience a downtime of at least three days. The new report, 'Cloud Down – The Impacts on the US economy,' utilises loss data for 12.4 million organisations in the U.S. and proposes a different approach to assist re/insurers' ability to model this type of risk, which, are inherently complex and far-reaching.

<https://t.co/vZGYtaS58i>

Admin automation: the serverless low-hanging fruit

Serverless computing in 2018 is about where cloud computing was in 2009. But what exactly does serverless mean, and what are some easy ways to get started with it?

<https://t.co/94Fct19SYC>

Enterprise Blockchain Is Ready to Go Live in 2018

Last year saw a lot of blockchain experimentation in the form of PoCs and pilots in financial services, supply chain and a number of other industries as well as government operations. For these to move toward production in 2018, the technology needs to mature in key areas. But open source consortia like Hyperledger and enterprise software vendors like Oracle are stepping up to the challenge to deliver on these requirements.

<https://t.co/8hBlj9bzS9>

Heatwave triggers 'Code Yellow'

A heatwave gripping southern Australia has put so much strain on the national power grid, some Victorian hospitals have been forced to issue a "Code Yellow" alert amid fears of blackouts.

Victoria's Department of Health has warned all Melbourne hospitals to check that their emergency generators are working in case they lose power. A Department spokesman confirmed all Melbourne hospitals were asked to check emergency and back-up power supplies. Some hospitals were forced to issue a "Code Yellow" alert, which means that health services may be required to conserve energy by turning off non-essential lights and equipment.

<https://t.co/VGsoZcyvCC>

The top 10 security challenges of serverless architectures

Serverless architectures, also known as function as-a-service (FaaS), are used in the enterprise to both build and deploy software and services without the need for in-house physical or virtual servers. This kind of architecture has proven popular due to inherent scalability and compatibility with cloud services and includes AWS Lambda, Azure Functions, Google Cloud Functions, and IBM BlueMix Cloud Functions. However, as noted in a new report by PureSec, it is not immune to the security issue, which impacts more traditional server-based systems.

<https://t.co/Y2KtwGXZfr>

HPE and NREL Take Steps to Create a Sustainable, Energy-Efficient Data Center with an H2 Fuel Cell

As enterprises attempt to manage rising volumes of data, unplanned data center outages are becoming more common and more expensive. Nationwide, 91 percent of data centers experienced an unplanned outage during the past year. To combat this issue, Hewlett Packard Enterprise (HPE) has teamed up with the National Renewable Energy Lab (NREL) with the goal of creating a hydrogen-powered data center that is high-performing, extremely reliable, and energy efficient.

<https://t.co/HgLmMFtHiC>

The keys to modernizing legacy IT systems

The 2017/2018 Logicalis Global CIO Survey found that legacy systems were top of mind for many of the 890 CIOs polled. Most of the CIOs surveyed say they're focused on digital transformation, with 44 percent citing the complexity of legacy technology as their top obstacle. The survey also found that 51 percent of CIOs plan to replace or adapt existing infrastructure as part of their digital transformation efforts.

<https://t.co/f2YML2LpJB>

Lithium batteries becoming popular choice for datacenter UPS systems

Datacenters' demand for lithium batteries used in their uninterruptible power supply (UPS) systems is expected to rise dramatically in 2018 as tech giants, including Google, Amazon, Microsoft, Facebook and Hewlett-Packard Enterprise (HPE), are poised to adopt related solutions for their server systems.

<https://t.co/7Y22QrBXcE>

NOAA Weather Forecasts Stick with CPUs, Keep an Eye on GPUs

The United States arguably did not invest enough in weather forecasting for many years; but NOAA inked a ten-year, \$502 million deal with IBM back in March 2011 to massively upgrade the supercomputers at the National Centers for Environmental Prediction (NCEP) facilities in Reston, Virginia, and Orlando, Florida. In the wake of Hurricane Sandy in 2012, the investment increased, not just to build yet another larger pair of supercomputers but to keep the pace of upgrades steady and predictable. The Weather and Climate Operational Supercomputing System, or WCOSS, was last upgraded two years ago with a pair of Cray XC40 machines. Just like clockwork, it is getting upgraded in early 2018 with a substantial performance boost that will improve the length and accuracy of forecasts here in the States.

<https://t.co/YYqNfCcQj4>

Is Solar-Powered Bitcoin Mining the Future?

Even though the price of Bitcoin has been booming, going all the way from about \$1,000 back in January to \$19,000 at one point in December, there's a couple of big roadblocks. One of these is the massive amount of power it takes to actually mine the coins. Everyone who is looking to mine is trying to figure out how to keep their electricity expenses low. Some operations have set up shop in countries like Iceland to take advantage of geothermal power. Nations like Belarus have also become attractive because of the relatively low cost of power compared to other places. However, solar power has actually become one of the most talked about ways for miners to run their operations, especially since Bitcoin and solar actually have a pretty long relationship together.

<https://t.co/izSIRYXKxr>

Overstock Payments Glitch Mixes Up Bitcoin and Bitcoin Cash

Online retail giant Overstock.com reportedly experienced a cryptocurrency payments bug that could have allowed customers to mint money simply via repeated cancellation of orders. In January, North Carolina-based bank security firm Bancsec informed journalist Brian Krebs that Overstock.com had erroneously accepted bitcoin cash instead of bitcoin as payment for a product. To confirm the issue, Krebs ordered a \$78 motion sensor light on Overstock and opted to make payment by bitcoin.

"Logging into Coinbase, I took the bitcoin address, pasted that into the 'pay to:' field, and then told Coinbase to send 0.00475574 in bitcoin cash instead of bitcoin," Krebs writes on his website. Because of the glitch, the security specialist was able to make a \$78 purchase by sending approximately \$12-worth of bitcoin cash.

<https://t.co/gpYrHvsVFn>

Russia moves toward creation of an independent Internet

Freedom on the Internet has diminished over the years in Russia: people go to jail for posts on social media, there's a ban on VPN services, and expanded data storage is hard to come by. And recent moves by the Russian government indicate that further developments are yet to come.

<http://bit.ly/2Bb3lO3>

Tallawarra power plant goes offline

Wollongong's Tallawarra Power Station failed last week – for the second time in the past month. The Australia Institute (AI), a Canberra-based think tank, reported the gas-fired power station – on the shore of Lake Illawarra at Yallah – suddenly dropped to zero output on Friday afternoon. The Energy Australia plant had been generating 394 megawatts (MW) when the outage occurred for about two hours and 20 minutes. It didn't return to the earlier output figure for another two hours.

<https://t.co/bK1EQ0IB6C>

SSM Health data breach compromised 29,000 patients after unlawful intrusion by employee

SSM Health has revealed a data breach that compromised the protected health information of 29,000 patients. The system said they learned of the breach on October 30, 2017, after discovering recently that a former employee inappropriately accessed medical records while working in the customer service call center.

<https://t.co/DgQZQ0B7qG>

How network verification differs from monitoring, and what it's good for

Network verification is quite different from monitoring in powerful ways. Monitoring observes low-level events; verification understands the high-level goal. Monitoring watches what happened; verification predicts what could happen. Monitoring samples a few packets; verification explores all possible behaviors.

<https://t.co/mRDsmSgfzI>

Survey finds IT disaster recovery practices still rely on old technologies

A joint survey of more than 5,600 information technology professionals across the globe found that few organizations are tapping into new technologies to improve IT resilience. Despite the availability of a variety of new cloud-based backup and disaster recovery services, most organizations are still using on-premises equipment and managing backup with their own staffs. Migrations are similarly coordinated internally, with the result being that a significant minority of respondents have experienced a failed migration project within the past year.

<https://t.co/ASCJjMlImO>

MTR East Rail disruption caused by failure of both primary and backup servers

The MTR Corporation announced that the serious service disruption on the East Rail Line (Hong Kong) on January 11th was caused by the failure of both the primary and backup servers of the signaling system. MTR staff said that at 9:00am, the signal system encountered a server problem; and the situation did not improve after switching to a backup system. "We had to restart the server manually, but it was not successful. Since the operation needed some time, for safety, the control centre suspended the whole East Rail line around 9:25 am."

<https://t.co/7DHE1VJ2XO>

SCADA security: Bad app design could give hackers access to industrial control systems

Mobile applications used to help control Internet-connected SCADA (industrial control and supervisory control and data acquisition) systems are riddled with security vulnerabilities that, if exploited, could be used by attackers to disrupt or damage critical infrastructure.

<https://t.co/PBB5DnH3Mr>

What IT pros need to know about the Meltdown exploit

Meltdown is an exploit that takes advantage of how modern Intel CPUs execute instructions out-of-order in an attempt to be more efficient and performant. Exploiting this vulnerability gives the attacker access to most if not all of the privileged data stored in memory. This exploit operates at the hardware level and therefore applies to all operating systems, including Windows, Linux, and macOS. It also enables a guest virtual machine to break into hypervisor memory and containers to break into host memory. As such, this exploit affects not only desktop and server operating systems but also resources hosted in the cloud.

<https://t.co/VCip7DIqME>

How Does the Ability to Shoot Down Rockets Bring Widespread Value to The Utility Industry?

A company that cut its teeth developing Israel's Iron Dome air defense system is now bringing its collective tools and skills sets to help the utility industry manage its complex and growing challenges.

<https://t.co/ZsjXSILvfl>

Hawaii false alarm shows just how close the line is between mishap and nuclear war

In 1983, a Korean airliner bound from Anchorage to Seoul, South Korea, strayed into Soviet airspace. Air defence officers, mistaking it for a U.S. spy plane that had been loitering nearby, tried to establish contact. They fired warning shots. When no response came, they shot it down, killing all 269 people on board. But the graver lesson may be what happened next. Though it was quickly

evident that the downing had been a mistake, mutual distrust and the logic of nuclear deterrence — more so than the deaths themselves — set Washington and Moscow heading toward a conflict neither wanted. The story illustrated how imperfect information, aggressive defense postures and minutes-long response times brought both sides hurtling toward possible nuclear war — a set of dynamics that can feel disconcertingly familiar today.

<https://t.co/EnqVluJsH2>

From the Availability Digest: "Swapping Replication Engines with Zero Downtime"

Sometimes, companies may decide to change data replication engines or to upgrade to a new version of the existing data replication engine. With mission-critical applications, it is necessary to do so without taking the applications down – a zero downtime migration (ZDM). Furthermore, it is imperative that a backup copy of the database is always available, ready to take over if the production database fails. The backup database must be kept synchronized with the production database while the data replication engine is being migrated. In this article, we describe how a data replication engine can be changed without taking down either applications or the backup database.

<https://t.co/HCoWiwoGmO>

At J.F.K. Airport, the Planes Just Wouldn't Stop Coming

The harsh winter storm had passed. In its aftermath, parts of the airport were overloaded, jammed with planes that had been kept on the ground during the storm. But screens showed bright yellow airplane icons — incoming flights — approaching, with many more on the way. One by one they landed. Unused runways became parking lots, with planes waiting for gates. And still they kept coming. Hours and hours passed. It was the failure to stop them, experts said, that turned a chaotic but manageable winter-storm episode into an airport delay for the ages.

<https://t.co/2yYJ8pK2Sj>

New Florida City to Produce Its Own Power, Have Self-Driving Buses

A new city of the future, now being built in the U.S. state of Florida, will rely 100 percent on solar energy. It's the first totally ecological, self-sustaining city in the U.S. and has an integrated smart network that helps residents monitor and control the amount of electricity they consume.

<https://t.co/92BDW8AfFD>

Civil Works Accident Brings Down Two Manchester Data Centers

A civil contractor accidentally drove a spike through a power main in Manchester, England, on 12 December, cutting off power supply to two of the three buildings on the data center campus operated by UKFast, the British service provider. The facilities' backup power system failed to do what it was designed to do, and the data centers went dark.

<https://t.co/UutokVZYVw>

Data centre resilience: mitigate against the cost of downtime

The resilience of a data centre – the ability to remain operational even when there has been a power outage, hardware failure or other unforeseen disruption – is becoming increasingly critical for today's data centre manager. Combined with spiraling energy costs, legislative requirements and stringent environmental policies, the proliferation of big data and rise of the data centre make it increasingly important to mitigate against the cost of downtime. Whether associated with productivity losses,

revenue losses or longer-term customer attrition, the cost of recovering a system or the longer-term impact of reputational damage, the total cost of downtime can be crippling.

<https://t.co/QLyo8jfx87>

"The End of Custom Software?"

Back in the 1970s and 1980s, my company The Sombers Group specialized in writing custom software packages for our customers. Today, software-implemented packages are available to meet almost any computing need. But back then, there was a paucity of such products. The need for software solutions to corporate challenges kept busy about a dozen of our staff. We served a half-dozen customers at any one time. However, it is my belief and that of others that the days of start-to-finish custom software are substantially behind us.

<https://t.co/Vg3mSZGKZQ>

Forever 21 Breach: Hackers Accessed Credit Card Information Throughout Most Of 2017

Sealing a year plagued by cybersecurity incidents, Forever 21 confirmed in late December that hackers stole credit card information from its stores throughout most of 2017. The company said that hackers were able to gather personal information, like card number, expiration date, internal verification code and sometimes the cardholder's name. The retailer said its encryption technology, which has been used since 2015 on some point-of-sale (POS) devices at some stores, was not always on. At the same time, malware was installed on some POS devices.

<https://t.co/iID0HvYCjg>

Intel was aware of chip vulnerability when its CEO sold off \$24 million in company stock

Intel CEO Brian Krzanich sold off USD \$24 million worth of stock and options in the company in late November. The stock sale came after Google had informed Intel of a significant vulnerability in its chips — a flaw that became public only in January. Intel says the stock sale was unrelated to the vulnerability and came as part of a planned divestiture program. But Krzanich put that stock-sale plan in place in October — several months after Intel was informed of the vulnerability.

<https://t.co/Coj4N1ljwr>

BBC News - Intel, ARM and AMD chip scare: What you need to know

Nearly all computers worldwide - and many other devices - have been exposed to security flaws that leave them vulnerable to attacks by hackers. Researchers discovered gaps in security stemming from central processing units - better known as the chip or microchip - which could allow privately stored data in computers and networks to be hacked. So far, no data breaches have been reported. Yet the question remains. Is it a big deal, and what does it mean for you?

<https://t.co/OMogwQ3OLc>

Meet the microgrid, the technology poised to transform electricity

A microgrid is any combination of power sources, power users, wires to connect them, and some sort of control system to operate it all. Microgrid just means a small, freestanding grid. It can consist of several buildings, one small building (sometimes called a "nanogrid"), or even one person (a "picogrid") with a backpack solar panel, an iPhone, and some headphones.

<https://t.co/D5uwmh1CAg>

Major flaw in millions of Intel chips revealed

A serious flaw in the design of Intel's chips will require Microsoft, Linux and Apple to update operating systems for computers around the world. It is believed to affect chips in millions of computers from the last decade.

<https://t.co/UpEEB290Vk>

Serverless: The future of cloud computing?

The cloud has been a boon for many companies, enabling CIOs to turn off servers or even shutter data centers. CIOs rent processing power, storage and other tools from a mix of vendors in a quickly growing market. But a small contingent of IT leaders is looking to a more efficient way to rent computing horsepower. Rather than take on the often onerous obligations of designing and managing cloud architecture, they are going “serverless.”

<https://t.co/UQ7wqpg4f2>

Australian towns going off the grid

As prices rose to new highs last year, and as the ever-constant threat of blackouts hung over the east coast, many Australians looked for energy alternatives. While many are taking steps at the individual level, others are looking to take full advantage of the push for more renewable energy and shift away from centralised power systems on a larger scale. This is seeing the rise of microgrids, a unique solution to a very Australian problem.

<https://t.co/l5MU5r2jma>

Blockchain and Data Storage: The Future is Decentralized

As it is with any emerging technology that suddenly gains fame and begins to be applied across real-world use cases, issues have emerged around the underlying characteristics of blockchain – many of which should be a primary focus of the coming year. Chief among these concerns is scalability. That being said, the existence of these issues serves as a marker of just how far blockchain has come. Tech leaders now posit that it could underpin the next phase of the internet, creating the decentralized world wide web. As we look ahead to this new, decentralized internet, it is important to consider one of its most important elements: decentralized storage.

<https://t.co/XpagbiX946>

Technology glitch delays O'Hare travelers at Customs

Travelers at O'Hare International Airport were among thousands delayed at their destinations nationwide due to a technology glitch with U.S. Customs and Border Protection applications in early January. Several major airports experienced a “temporary outage with its processing systems” for about two hours.

<https://t.co/7tXzh6JFgU>