the *Availability Digest*

@availabilitydig – Our April Twitter Feed of Outages
April 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.

Did a spilt can of COKE cause the City computer blackout?

It might just have been the most expensive can of Coke ever. A massive computer glitch that halted trading in stock exchanges around the world on Friday 17 April is being blamed on a spilt fizzy drink. Dealing across Europe and Asia was thrown into chaos by the crash of the server at Bloomberg's offices in the City of London. Bloomberg's computer system is the world's largest dealing platform and is used by most banks and trading floors. More than 300,000 screens suddenly went offline for several hours just after the start of trading, leaving brokers unable to work.

http://t.co/oECIoQDyJa

Digest Mg Editor Dr. Bill Highleyman - early pioneer in pattern recognition. See his U.S. patent here

http://t.co/IpM6dSpOrQ
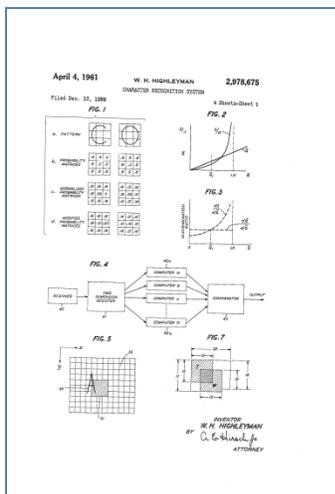
Airliners could be vulnerable to in-flight hacking, experts warn

Commercial airliners could be hacked in flight by passengers using a plane's wireless entertainment system to access its flight controls, a US watchdog agency has warned. A new report from the U.S. Government Accountability Office identified the danger as one of several emerging cybersecurity weaknesses that the Federal Aviation Administration must address as the air traffic control systems move toward next generation technology.

http://t.co/AeoNprdnrD

South Africa loses a quarter of power supply in plant breakdowns, one of its most serious breakdowns in years

South African utility Eskom said on April 14th that it had lost 9,500 megawatts (MW) of electricity due to unplanned outages and was forced to implement widespread power cuts in one of its most serious breakdowns in years. Eskom said the 9,500 MW it lost was in addition to around 5,000 MW the utility had taken out for scheduled maintenance.

http://t.co/2Nfl7yxIyJ

Digest Oldie but Goodie: "Active/Active Systems – A Taxonomy." Any system architecture that is ASSC is active/active

Active/active systems are characterized by the attributes of availability, survivability, scalability, and consistency. They eliminate planned downtime and have expected mean time between failures that are measured in centuries. They can survive the failure of an entire data center. They are scalable by simply adding compute resources with no impact to the users. They will consistently execute operations in a predictable manner across the application network.

http://t.co/KVcvxJLYGb

National power grids hit by cyber terrorist onslaught

An analysis of federal energy records has revealed that parts of the US power grid are attacked online or in person every few days.

http://t.co/ijGv7iUt0M

Four Patents That Changed Enterprise Storage

The author discusses patents awarded to Data Domain [# 6,928,526 (2005)]; NetApp [#6,289,356 (2001)]; Isilon Systems [#7,146,524 (2006)]; and VMware [#8,650,359 (2014)].

http://t.co/V2TRDRWKll

Alaska Internet providers get redundant

The redundant cable systems used by Alaska Internet service providers are more than an added bonus for their customers. While not required by law, Internet service providers in the state have chosen to make their systems redundant in order to avoid a situation similar to that which occurred last month in Arizona. Vandals cut a fiber-optic cable north of Phoenix that resulted in a nearly 15-hour Internet blackout across much of the state.

http://t.co/dmt2s7Vtp2

Cybersecurity breaches spike 23%

Organized criminal gangs of hackers got smarter, faster and more ubiquitous last year, pulling off 312 major breaches against companies. That's up 23% from the year before, according to Symantec's 2014 Internet threat report. Health care companies were a major focus of hackers, with 37% of breaches in that sector, compared with 11% in retail and 10% in education.

http://t.co/O9rb5wRurH

"Breaking the Availability Barrier II: Achieving Century Uptimes with Active/Active Systems." Now available on Kindle

This book is Volume 2 of a three-part series on active/active systems. It describes techniques that can be used today for extending system failure times from years to centuries, often at little or no additional cost. Co-authors are Dr. Bruce Holenstein (President and CEO, Gravic, Inc.), Dr. Bill Highleyman (Managing Director, Availability Digest), and Paul J. Holenstein (Executive Vice President, Gravic, Inc.).

http://t.co/gmbHPLTaIh
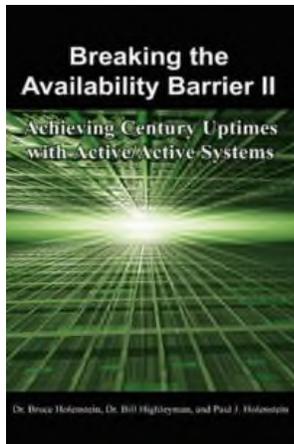
Design redundancy into VoIP communication systems

VoIP communication components like VoIP PBX, voice gateways and messaging and presence servers are key to a smooth redundant design and uninterrupted service.

http://t.co/vJWAg3K3u2

IE Questions: What Causes Blackouts?

The Institute of Electrical and Electronics Engineers (IEEE) sets grid standards that are widely but not exclusively used by utility companies. The IEEE considers outages like the 2003 Northeast blackout to be "Major Events," defined as "...an event that exceeds reasonable design and or operational limits of the electric power system." Today's IE Question takes a trip down memory lane to revisit some of the "Major Events" during which the North American machine has failed miserably.

http://t.co/jIp4cCAQ20

Comcast service restored to thousands of Seattle-area cable customers

An estimated 30,000 Comcast customers in the Seattle, Washington (USA) area were affected by an extensive outage on April 9th. The outage was caused by a construction crew cutting through a fiber-optic line.

http://t.co/PAMnSLhYXN

Cyberattack disables 11 French TV channels, takes over social media sites

A global French-language television network struggled Thursday, 9 April, to regain its footing -- and contact with its audience -- after having been virtually disabled by a massive cyberattack the previous evening. In addition to all of its 11 channels, TV5Monde also lost control of its social media outlets and websites.

http://t.co/hTJvjBGKPD

From our very first Digest issue: "With 100% Uptime, Do I Need a Business Continuity Plan?"

Extreme availability does not mean an absolute 100% uptime. Even if our calculated uptime is in the thousands of centuries, it still means that on the average, there will be a system failure during that interminable time. And as random events go, that failure could be tomorrow. We might not expect another one for 10,000 years, but we had better be able to deal with tomorrow's failure. That is why we always need a good Business Continuity Plan.

http://t.co/WRVdSKUGKn

Microsoft's Outlook mail service unavailable for some users

Microsoft's Outlook email service was hit by some serious issues that caused temporary outages in early April. The issue took much longer to resolve than was expected and was well acknowledged by Microsoft. Impacted were users of: Windows Live Mail, Outlook Connector, MSN Premium client, Windows Phone 8.1, and Windows 8 Mail Client.

http://t.co/MLTd4GkIPX

Power plant explosion blamed for D.C. outage

An explosion at a power plant in southern Maryland (USA) may have led to "widespread outages" in the nation's capital on April 7th. Both of the power companies responsible for providing electricity to the District of Columbia reported large-scale outages as of 2 p.m. Affected were the White House, Capitol Building, State Department headquarters, and others.

http://t.co/YrqsFTjLTh

Data centre failure takes 1.5mn Three customers offline in Ireland

The Three mobile phone network was brought down by an electrical failure at one of the company's data centres on Easter Monday. It affected up to 1.5 million of its 2 million Irish customers. According to Three, the network disruption occurred due to an electrical fault that triggered an increase in temperature at the facility, consequently impacting some of the systems and pulling many offline.

http://t.co/vomNTy4uow

Widespread power outage reported in Washington DC

A power outage affected much of Washington D.C. and large swaths of southern Maryland on Tuesday, touching even White House and State Department facilities.

http://t.co/ftnLzTcQ7b

Can you recover your data if disaster strikes? Sure?

Full-blown disaster recovery involves beating every single aspect of one's IT plant into shape and being able to spin it all back up somewhere else after the worst has happened. This alone causes anxiety. None of us has an IT plant that is bug free. None of us has 100% automated every aspect of our IT.

http://t.co/iYddsmXBsj

The Availability Digest writes for others as well as for ourselves. Check out our services

The articles you read in the Availability Digest result from years of experience in researching and writing a variety of technical documents and marketing content. It's what we do best, and we provide our services to others who value high-quality content created by IT specialists. In addition to articles, we write white papers, case studies, Web content, slide presentations, technical manuals, functional specifications, proposals, and books.

http://t.co/ZTVj27eSI9

Best April Fools' Day Tech Jokes

Every year, without fail, we forget the date is April Fools and stumble across an extraordinary news story. This year's best efforts include Microsoft's launch of MS-DOS Mobile, Domino's Domi-No-Driver, a self-driving bike that delivers pizzas, and Firefox's Inner Selfie Stick (extendable to 110cm), which allows users to snap their bodies' innards for the ultimate vanity shot.

http://t.co/7BRlNV1Y85

Storage and Security: Five Things You Need to Understand

With so many new types of applications being developed (both internally and in the cloud), new concepts around security are emerging. Some directly impact storage technologies. Still, there are core concepts that also need to be understood, especially in light of the increasing amounts of information that needs to be secured.

http://t.co/EFxj5kMKIQ

Gmail outage traced to certificate expiration

Many Gmail users were unintentionally shut out of receiving email messages on April 4th when Google allowed one of its root certificates to expire. At issue was the certificate for Google's intermediate certificate authority (Google Internet Authority 2), which is used to issue Gmail's certificate for SMTP.

http://t.co/l82lSUIg1j

Power, Internet access knackered in London after exploding kit burps fire into capital's streets

A massive 1 April fire near Holborn tube station in London knocked out power and internet access across several regions of the capital. The fire broke out just after midday at an electrical junction box buried under the street and spread quickly. Manhole covers belched fire, and thick smoke rose from the street. At least 2,000 people were evacuated, and power was cut to local businesses.

http://t.co/pWLv14aM82

Be Your Own Bank

Bitcoin is maturing into a safe, secure system that offers tangible benefits for the underbanked. No longer a solution looking for a problem, it will be a way for many consumers over the next decade to gain access to financial tools while avoiding large transaction fees and service charges.

http://t.co/nUqtWRlWZh

Exchanges Breakdown, Apple Quote Outage On Nasdaq For 6 Minutes

On Tuesday morning, 31 March, multiple stock exchanges broke down and failed to send data to each other. Problems with sending data between exchanges happen from time to time. Typically, exchanges will issue 'Self-Help' on another exchange to draw attention to data dissemination problems. However, the issue on 31 March caused many ETFs to halt trading across all markets. Of particular note, Apple Inc.'s quote did not trade for six minutes.

http://t.co/PacWO6Ik7M

Turkey grinds to halt after massive power cut

A massive power cut caused chaos and shut down public transport across Turkey on March 31st, with the government refusing to rule out that the electricity system had been the victim of an attack. The nationwide power cut was the worst in one-and-a-half decades.

http://t.co/dphR95OaVe

RadioShack Sale Sparks Data Privacy Concern

AT&T and more than 20 states are opposing the potential sale by RadioShack of 13 million email addresses and 65 million customer names and addresses as part of its bankruptcy proceedings. They fear that such a move could set a dangerous precedent for privacy and proprietary rights in the Internet age.

http://t.co/0aSrHkwbhM

HP Releases Updates Across Enterprise Line, Struggles With Mobile Strategy

HP recently announced updates across its enterprise software line as well as one new offering that leverages its HP Haven big data platform. However, while HP customers will welcome the news, the variety of the updates combined with HP's impending split into two companies shows inconsistencies in its mobile strategy.

http://t.co/zSoTBzR9Zt

Can the Cloud Clear the Mission-Critical Hurdle?

The cloud wants enterprise data. So far, it has been fairly adept at gathering such low-hanging fruit as bulk storage, archives, B&R, low-level database workloads and other non-critical stuff.
The real money is in advanced applications – the kind of data that organizations will pay a premium to support. Enterprises typically keep critical data close to the vest, which means cloud providers need to go the extra mile to win enterprise trust. For the most part, that has not happened yet.

http://t.co/13bdpSGkcm

BBC News - Cyber-attacks hit British Airways, GitHub and Slack

British Airways' air-miles accounts, the coding site GitHub and the work chat service Slack have all been hit in the latest wave of cyber-attacks. The firms have dealt with the attacks in different ways, and BA has been criticised for how it responded.

http://t.co/n8mifcWCxg

U.S. coding website GitHub hit with cyberattack

A popular U.S. coding website is enduring an onslaught of Internet traffic meant for China's most popular search engine, and security experts say the episode likely represents an attempt by China to shut down anticensorship tools.

http://t.co/oQ7A4FAh5i

911 Moves to the Cloud

With proper engineering, the cloud simplifies 911 call routing and greatly increases the odds of an emergency call reaching the right PSAP to save lives.

http://t.co/93eITy7l8u

Cloud Provider's SLA: What to Look For

When it comes to choosing a cloud provider, the Service Level Agreement could prove more vital than the hardware they have on the back end. The SLA is a legal promise of performance, availability and rights, yours and theirs, and should never be taken lightly. Despite their importance, some SLAs are shockingly short; just a few paragraphs in some cases. And providers have become shockingly lackadaisical about it.

http://t.co/9opxkIZOzD

Major power outage hits Amsterdam, affecting trains, airport

Trains, trams and planes ground to a temporary halt Friday, 27 March, as a huge power outage hit Amsterdam and surrounding towns. Dutch electricity network administrator TenneT said that a large part of North Holland province, home to some 2.7 million people, was hit by the outage. The cause was an outage at a high-voltage power station in the town of Diemen, just outside the Dutch capital.

http://t.co/32iDfqkdn7