

the *Availability Digest*

www.availabilitydigest.com

@availabilitydig – The Twitter Feed of Outages

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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.



Availability Digest Editor Dr. Bill Highleyman Will Speak at NonStop Technical Boot Camp: "DDoS Attacks - The Latest Availability Threat."

Distributed Denial of Service (DDoS) attacks in the fourth quarter of 2012 were the highest ever and represented a 53% increase over those in the fourth quarter of 2011.

http://www.availabilitydigest.com/misc/ns_bc_2013_abstract

Cyberattacks Second Most Common Cause of Severe EU Wired Internet Outages in 2012

Cyberattacks affected more people in the E.U. last year than hardware failures, a much more common factor in service disruptions.

<http://trib.al/60Yfs5Z> via @CIOonline

"The Power of the Pee"

Researchers at the University of the West of England have been working on a new project sourcing electrical power from urine, enough that they can power a mobile phone.

<http://www.computerweekly.com/blogs/it-downtime-blog/2013/08/the-power-of-the-pee.html> ...

An Availability Digest Oldie But Goodie: "The Availability Matrix."

The technologies required to meet various RTOs and RPOs are independent. Therefore, the choice of technologies required to satisfy a given SLA can be reduced to a simple matrix – the *Availability Matrix*.

http://www.availabilitydigest.com/public_articles/0601/availability_matrix.pdf ...

No Reason to Panic Over Periodic Cloud Outages

A string of cloud-service outages is drawing attention to the fragility of the Internet and cloud-based services. Cloud computing is becoming an indispensable part of our daily work and personal life.

<http://channelnomics.com/2013/08/20/no-reason-to-panic-over-periodic-cloud-outages/> ...

Twitter's New Infrastructure Weathers Massive Tweet Storm

Twitter users in Japanese watching "Castle in the Sky" posted key lines of dialogue that resulted in an all-time, one-second peak of 143,199 Tweets per second,

<http://www.datacenterknowledge.com/archives/2013/08/19/twitters-new-infrastructure-weathers-massive-tweetstor/> ... via @datacenter

Analysing Friday's Google Outage

Nearly all of Google's services went down on Friday afternoon; and Internet traffic dropped by 40%, showing the usage of the Internet by Google users.

<http://onforb.es/151INJA> via @forbes

Microsoft restores <http://Outlook.com> after three-day outage

Microsoft apologized for a three-day partial outage of Outlook.com and said the email service was back up and running only to note hours later that problems still plagued some customers.

<http://shar.es/z04Vp> via @computerworld

"Avoiding Common Data Center Design Mistakes"

Before considering three major areas of data-center design—electrical, mechanical, and plumbing—a look at some overall design principles should be discussed.

<http://www.datacenterjournal.com/dcj-magazine/avoiding-common-data-center-design-mistakes-2/> ...

New York City's New 911 System Goes Down Four Times

The new New York City 911 system underwent extensive testing prior to its inauguration, but this did not prevent it from failing four times in its first three days of operation.

http://www.availabilitydigest.com/public_articles/0806/nyc_911.pdf ...

13 of the largest power outages in history – and what they reveal

Take a look at the 13 major power outages over many years, and see that the problems we face are not because we aren't building enough power plants.

<http://shar.es/y93G0> via @sharethis

A Gravic, Inc. case study: "One Bank's March Towards Active/Active."

A failover fault following an earthquake made the bank realize that it needed a backup that was known to be working and that could be tested frequently without affecting its customers.

<http://www.gravic.com/shadowbase/pdf/case-studies/One%20Bank's%20March%20Towards%20Active-Active.pdf>

Sears Replaces Retail Stores with Data Centers

Recognizing the world needs less space for retail and more to store data, Sears plans to turn some Sears and Kmart locations into data centers and disaster-recovery spaces.

<http://www.forbes.com/sites/retailwire/2013/05/31/sears-replaces-retail-stores-with-data-centers/>

Microsoft Office 365 Uptime Steady at 99.97%.

Some solution providers remain reluctant to use Microsoft Office 365 amid questions about reliability.

Microsoft has released its uptime statistics, which show the service has an average 99.97% availability.

<http://channelnomics.com/2013/08/09/microsoft-office-365-uptime-steady-at-99-97/>

An Availability Digest Oldie but Goodie: Fire suppression system noise can damage servers.
WestHost, a major web hosting and dedicated server provider, lost its data center for six days when a fire-suppression system test went terribly wrong.

http://www.availabilitydigest.com/public_articles/0509/westhost_update.pdf

Check out the digital edition of the July/August Connection, everything you want to know about HP NonStop.

<http://bit.ly/11L3FDG>

Global airline computer outage triggers delays, cancellations.

Dozens of flights were canceled or delayed worldwide after a Sabre reservation system outage forced several airlines to manually check in and board passengers.

<http://www.nbcnews.com/travel/global-airline-computer-outage-triggers-delays-cancellations-6C10855938>

10 years ago, 55 million people were left without power; Utility experts say repeat is unlikely.

Nearly 55 million people in eight states and Canada were suddenly without electricity after high-voltage lines failed and power plants automatically shut down in a cascading blackout.

<http://po.st/MxzSXv> via @po_st.

An Availability Digest Oldie But Goodie: "HP Blows Up Data Center."

Watch HP's HP-UX, NonStop, OpenVMS, and Windows systems recover in minutes after their data center blows up.

http://www.availabilitydigest.com/public_articles/0208/hp_blows_up_data_center.pdf

Clouds are backing up clouds, with more choices on tap

Enterprises can store their data in the Amazon S3 or Microsoft Azure cloud as their primary storage, with their data mirrored to the other cloud.

<http://shar.es/yvif7> via @networkworld

3 Lessons Learned from Feds' Data Center Consolidation

Three years after officials launched an initiative to reduce the number of federal data centers, the count has only increased.

<http://twb.io/1crxCPC> via @NetworkComputin

8 Cities Where 911 Systems Recently Failed

Los Angeles, Seattle, Chicago, Bethlehem PA, Portland OR, San Francisco, Austin TX, and many times in New York City.

<http://www.motherjones.com/politics/2013/07/911-dispatch-emergency-system-fail-breakdown>

Check out "Breaking the Availability Barrier: Survivable Systems for Enterprise Computing."

A three-volume series of books on active/active systems. They describe techniques that can be used today for extending system failure times from years to centuries, often at little or no additional cost.

<http://amzn.to/1cGZn7e>

How A Switch Failure in Utah Took Out Four Big Hosting Providers

Two network switches failed in a data center near Provo, Utah. The downtime spread across four major U.S. web hosting firms, affecting millions of customers.

<http://bit.ly/150zg16>

Great LinkedIn discussion on how to measure availability plus availability vs. reliability.

We usually measure system/application availability in percentages of uptime vs. wall clock time, but how should we measure data availability?

http://www.linkedin.com/groupItem?view=&srctype=discussedNews&gid=2586333&item=262010480&type=member&trk=eml-anet_dig-b_pd-ttl-cn&fromEmail=&ut=28-aF6zM8PNBQ1

6 Things You Don't Know About Deduplication in the Datacenter

The general awareness of deduplication doesn't mean users are leveraging it to its full potential. There are several critical facts about deduplication processes and performance that are not clear to IT leaders.

<http://virtualizationreview.com/articles/2013/07/15/vv-6-deduplication-myths.aspx>

DMV Computers Fail Statewide, Police Can't Access Database

DMV computers throughout New York went down for hours after a failed upgrade, leaving state troopers without access to the driver's license database and causing delays, driving motorists mad.

<http://bit.ly/13t16Cz> via @nbcnewyork

The Big Cloud Question: How Much Does Downtime Cost You?

Stratus Technologies' Dave LeClair points to downtime costs as the primary reason why you aren't yet seeing mission-critical apps in the cloud.

<http://ow.ly/nk0ip> via @MEnterprise360

A "catastrophic failure" has hit Oregon state government's computer server center.

The failure affected the ability of agencies statewide to connect to databases. It disrupted email, and overnight mainframe operations weren't accomplished. It happened during a storage upgrade.

[http://www.kvewtv.com/article/2013/jul/16/big-outage-hits-oregon-state-data-center/ ...](http://www.kvewtv.com/article/2013/jul/16/big-outage-hits-oregon-state-data-center/)

Android Spyware Infections on the Rise, Report Says

The vast majority of mobile devices infected with malware are running the Android operating system. A third of the top 20 malware threats for Android fall into the spyware category.

<http://shar.es/kDaOH> via @CIOonline

Check out W. H. Highleyman's "Performance Analysis of Transaction Processing Systems."

This book provides the practical tools necessary for an in-depth analysis of the performance of real-time computer systems. The book requires nothing more than a knowledge of simple algebra to understand.

<http://amzn.to/1d5hX8u>

DDoS Attack Behind Latest Network Solutions Outage

A Distributed Denial-of-Service attack crippled the servers at hosting services firm Network Solutions, disrupting thousands of websites for several hours.

[http://www.crn.com/news/security/240158492/ddos-attack-behind-latest-network-solutions-outage.htm ...](http://www.crn.com/news/security/240158492/ddos-attack-behind-latest-network-solutions-outage.htm)

How to Evaluate Moving Legacy Mission-Critical Apps to the Cloud

Companies need to look seriously at which applications they are putting in the cloud and consider what's involved in managing this shift from a resource, skillset, cost and complexity standpoint.

<http://trib.al/IOBcn2i> via @CIOonline

Is there any comparison of % of continuous availability of various platforms like Tandem, Stratus?

A Continuous Availability Forum thread on LinkedIn. In the late 2000s, Gartner came out with a study showing availability for various systems, including all sources of failure.

<http://linkd.in/14jwJUe>

Some Data Center Operators Take Their Chances with Floods

Few IT organizations -- even those that suffered or narrowly escaped damage during recent major storms -- are thinking long-term. Most IT leaders are taking the path of least resistance and least expense.

<http://trib.al/csAhQGn> via @CIOonline

