Disaster is an understatement for any brand/organization/institution that has incurred losses due to an overtly miniscule but catastrophic software glitch. While technology and innovative applications have been empowering brands, there have been numerous disabling instances recorded by enterprises.

In this run on top software failures of 2016 -2015-2014, we take a stock of the debacles/glitches that have changed the face of software development and endorsed the role of testing in the overall SDLC process.

This is a list of software glitches/technical issues witnessed by brands and enterprises across diverse industries. Please note that the numbers 1-37 do not signify in anyway high or low impact of the software glitch on the brand/enterprise.

1. Yahoo reports breach
Amongst the most recent data breaches, on September 22, 2016, Yahoo confirmed a data breach that exposed about 500 million credentials that date back to four years. It is being considered amongst the largest credential leaks of 2016. The company believes that this was a state-sponsored breach, where an individual on behalf of a government executed the entire hack. It further urged users to change their passwords and security questions. As a relief for the users, Yahoo stated that sensitive financial data like bank accounts and passwords was not stolen as part of the breach.


2. Nest thermostat freeze
Software update for the Nest ‘smart’ thermostat (owned by Google) went wrong and literally left users in the cold. When the software update went wrong, it forced the device’s batteries to drain out, which led to a drop in the temperature. Consequently, the customers were unable to heat their homes or use any amenities.

Nest claimed that the fault was due to a December 4.0 firmware update, with related issues such as old air filters or incompatible boilers. Later it released a 4.0.1 software update that solved the issue for 99.5% of customers who were affected.


3. HSBC’s major IT outage
In January 2016, HSBC suffered a major IT outage, and millions of bank customers were unable to access online accounts. The bank took almost 2 days to recover and get back to normal functioning.

HSBC’s Chief Operating Officer (COO) declared that it was a result of a ‘complex technical issue’ within the internal systems.


4. Prison Break
A glitch that occurred in December 2015 led to over 3,200 US prisoners being released before their declared date. The software was designed to monitor the behaviour of prisoners and was introduced in 2002. The problem was occurring for about 13 years and on an average prisoners were released almost 49 days in advance.


5. HSBC payments glitch
In August 2015, HSBC failed to process about 275,000 individual payments that left many people without pay before a long Bank Holiday weekend. This occurred due to a major failure with the bank’s electronic payment system for its business banking users, affecting the individual payments. Bacs, a payment system used for payment processes across the UK, later picked up on this issue, labelling it as an ‘isolated issue’.


6. Bloomberg cancels debt issue

In April 2016, Bloomberg’s London office faced a software glitch, where its trading terminals went down for two hours. This came up at an unfortunate time when UK’s Debt Management Office (DMO) was about to auction a series of short-term Treasury bills. Later in a statement Bloomberg declared that the services were restored and the glitch was a result of both hardware and software failures in the network, resulting in excessive network traffic.


7. RBS payments failure
About 6 lakh payments failed to get through the accounts of RBS overnight in June 2015, which included wages and benefits. Bank’s chief admin officer stated it as a technology fault and there was no further detail on the real cause. In 2012, about 6.5 million RBS customers had to face an outage caused due to a batch scheduling software glitch, where the bank was fined £56 million.


8. Airbus software bug alert
9. UK government's new online farming payments system gets delayed

In March 2015, the UK government delayed the launch of £154 million rural payments system. The system is an online service for farmers to apply for Common Agricultural Policy payments from the EU. This online service that was supposed to be up and running by May 2015 got delayed due to integration issues between the portal and the rules engine software. It was then not expected to be up even by 2016.


10. Co-op Food's double charges
In July 2015, Co-operative Food apologized to its customers and promised a refund within 24 hours. The reason was a ‘one-off technical glitch’ while processing the software that resulted in customers being charged twice.


11. John Lewis
Mispricing is a common headache faced by retailers due to system glitches, resulting in retail outlets offering customers excessively lucrative offers. John Lewis is a recent example, where the online retailer witnessed a price glitch on its website that erroneously advertised hardware at software rates.

Source: Money.aol.co.uk (http://money.aol.co.uk/2015/01/19/john-lewis-glitch-has-500-laptops-priced-at-40/)

12. **Tesco iPad pricing disaster**

In March 2012, Apple iPads worth £650 got priced at £49.99. After the glitch got identified, Tesco cancelled the sale and did not respond to these orders, resulting in dissatisfaction with the customers.

Source: Mycustomer.com (http://www.mycustomer.com/marketing/strategy/is-tescos-refusal-to-honour-its-ipad-price-glitch-the-right-decision)

13. **Marks & Spencer 3D TV glitch**
In January 2012, 50 inch, 3D TVs worth £1,099 went up on sale for a mere £199 on the Marks and Spencer website. Eventually, the company decided to sell the Plasma TV sets at a lowered price after it faced a customer petition. The online petition called ‘Marks & Spencer supply our tvs that we paid for’ compelled M&S to honour the orders.

Source: Thisismoney.co.uk (http://www.thisismoney.co.uk/money/bills/article-2089372/Marks--Spencer-Panasonic-50-inch-3D-TV-glitch-Petition-forces-M-S-honour-orders-199.html)

14. Reebok’s free trainers
In November 2013, Sports retailer Reebok trainers worth £100 were getting picked up for free from the online site, where the customers were being charged only for delivery. While the company did not honour the orders and apologised to the customer, they refunded the delivery charges and additionally gave 20% off on their next order. The pricing glitch went viral on Facebook and other sport and price deal forums, where shoppers rushed to get a grab of £99.95 CrossFit Nano Speed footwear for just £8.50 postage.

Source: Theguardian.com

15. Tennessee County kills System Update worth $1 Million

After investing two years of labour and investment worth $1 Million, Rutherford Country of Tennessee, US called off a court software system update. The core reason was that the software glitches were identified right when the deal took place, where problems related to issuance of checks, errors on circuit court dockets and creation of hidden charges came up in the weeks after it went Live.

Source: 99tests.com

16. Software Security Flaws Revealed in OLA's Mobile App
Ola, India's largest taxi aggregator faced major security flaws within their system. The software bugs detected helped basic programmers to enjoy unlimited free rides – at the expense of Ola and at the expense of users. The issue went public when customers brought up the weaknesses in the system. Ola tried to fix bugs when the complaints soared up and it was alarming for the brand's reputation in the marketplace.

Source: Economictimes.indiatimes.com (http://Economictimes.indiatimes.com)

17. Leeds Pathology IT crash
In September 2016, Leeds Teaching Hospitals NHS Trust, one of Europe’s largest teaching trusts witnessed a pathology IT crash that resulted in a delay of operations for almost 132 patients. Leeds Teaching holds a budget of £1 billion and employs over 16,000 staff. It serves 780,000 people in the city and provides expert care for 5.4 million patients. The outage further affected Bradford Teaching Hospitals NHS Foundation Trust, GP services in Leeds and a minor number of GP services in Bradford.

Now that’s the impact!

Source: Digitalhealth.net (https://www.digitalhealth.net/2016/09/ongoing-pathology-it-crash-in-leeds/)

18. Cisco's Email Security Appliances glitch

In September 2016, Cisco Systems released a critical security bulletin to announce an IT exposure that could allow remote unauthenticated users to get access to its email security appliances. The vulnerability is associated with Cisco’s IronPort AsyncOS operating system. The company further indicated that there is a way out of this that can stop this remote access to the email appliances.


19. Cisco Nexus Switches warning
Cisco again! In October 2016, Cisco Systems released several critical software patches for its Nexus 7000-series switches and its NX-OS software. Cisco’s Security Advisory declared that both the Nexus 7000 and 7700 series switches were vulnerable to this glitch. The vulnerabilities declared allowed remote access to systems that could enable a hacker to execute code on targeted devices. Cisco further declared that this bug (CVE-2016-1453) is a result of “incomplete input validation performed on the size of overlay transport virtualization packet header parameters”.


20. Cyber Attack on Nuclear Power Plant
In October 2016, the head of an international nuclear energy consortium declared that disruption at a nuclear power plant during the last several years was caused due to a ‘Cyber Attack’. Yukiya Amano, head of the International Atomic Energy Agency (IAEA) didn’t drill the matter much in detail, but did alter on the potential attacks in the future.

This shows that disruption in nuclear infrastructure due to a Cyber Attack is not a ‘Hollywood stint’!


21. Volkswagen’s ‘Dieselgate’ scandal

In September 2015, the US government in a dramatic move ordered Volkswagen to recall about 500,000 cars after learning that the company had deployed advanced software to cheat emission tests and allowed its cars to produce 40 times more emissions than the decided limit. The Environment Protection Agency (EPA) accused VW for installing illegal ‘defeat device’ software that substantially reduces Nitrogen oxide (NOx) emissions only while undergoing emission test. The company further admitted it and announced a recall as well.


22. Interlogix Recalls Personal Panic Devices
In October 2016, Interlogix, a wireless personal panic devices manufacturer recalled about 67,000 devices due to its inability to operate during emergency situations. The probable cause for this glitch in operations was that the device was unable to communicate with the security system during an event of emergency. The way out was the manufacturer replacing the devices. Furthermore, the consumers could contact their professional security system installer and call for a free monitoring and if required free replacement.

Source: News.sys-con.com (http://News.sys-con.com)

23. IRS E-File goes Offline
In February 2016, the Federal Agency suffered from a hardware failure. IRS announced that the hardware failure has affected numerous tax processing systems that went out of service, including the modernized e-file system and another related system. Majority of the folks trying to file taxes online could not complete the process. Later IRS made amendments and worked to restore regular operations to get back to the routine.

Source: Newyork.cbslocal.com (http://newyork.cbslocal.com/2016/02/03/irs-software-failure/)

24. **911 call outage**

In April 2015, Emergency services got stalled for six hours for seven US states. This affected 81 call centers, literally speaking about 6,000 people made 911 calls and were unable to connect across the seven states. The nationwide outage was the third major outage in three years across telecom operators of the 911 call system. This raised worries amongst federal regulators pertaining to the vulnerability of the country’s emergency response system.


25. **New York Stock Exchange halts trading**
In July 2015, The New York Stock Exchange stopped trading due to an undisclosed 'internal technical issue', where all open orders were cancelled and the traders were alerted and informed that they would receive information later. While responding to the shut down, NYSE announced that there was no cyber breach within the system and it resumed operations after 4 hours.


26. UK government’s online calculator glitch
In December 2015, UK government found out that its online calculator for estimating the spouse’s financial worth got hit with a Form E fault, where calculations went wrong for thousands of couples who had got divorced over the past 20 months. Though the issue was prevalent since April 2014, it got noticed only in December 2015. The damage caused is yet to be estimated.


Let’s take a dip into some of the interesting software debacles of 2014

27. Nissan’s recall

For over 2 years Nissan recalled over a million cars, thanks to a software glitch in the airbag sensory detectors. Practically, the affected cars were unable to assess whether an adult was seated in the car’s passenger seat and consequently would not inflate the airbags in case of a crisis.


28. Amazon 1p price glitch
One of the most known glitches in history, Amazon 1p price glitch, where third-party sellers listed on Amazon saw their products being priced at 1p each. While the products got delivered, numerous small time retailers had to appeal to the customers for returning the items.


29. Screwfix.com (http://Screwfix.com) glitch
30. Flipkart apologizes for Big Billion Day sale fiasco

In October 2014, Flipkart, India based e-commerce giant, sent a note to its customers apologizing for the glitches that took place on the Big Billion Day Sale. The site encountered a heavy rush, which it couldn’t manage, which resulted in cancellation of orders, delayed delivery, and much more that was beyond them to manage. While the sale helped the ecommerce giant garner a billion hits in a day, it was certainly a PR nightmare for the brand.

Source: Livemint.com (http://www.livemint.com/Industry/t5UDgJyzPc9F7vK7j7M62O/Flipkart-apologizes-to-customers-for-mega-sale-glitches.html)

31. CA Technologies paid RBS ‘millions’ for role in IT fiasco
In October 2014, CA Technologies paid ‘millions of pounds’ to the Royal Bank of Scotland. This payment was a part of the settlement agreement with Royal Bank of Scotland’s (RBS) IT outage in 2012. In 2012, a failed upgrade to CA7 batch processing software by RBS IT staff resulted in breakdown of systems that affected millions of customers. The customers were unable to access their accounts or execute any payments.


32. Chaos at UK airports
On December 12, 2014, UK’s busiest airports got stranded due to a system glitch at the main national air
traffic control center in Swanwick. Planes were grounded and passengers got delayed. The impact was enormous as the runways got closed at Heathrow, which is one of Europe’s busiest airports. The transport secretary called this ‘unacceptable’.

Source: Theguardian.com (https://www.theguardian.com/uk-news/2014/dec/12/heathrow-london-air-space-closed-computer-failure)

33. Toyota Prius recalled over software glitch

In February 2014, Toyota Motor recalled 1.9 million newest-generation Prius vehicles worldwide due to a programming error that caused the car’s gas-electric hybrid systems to shut down. The Automaker mentioned that the problems were with the software settings on the latest Prius generation that initially went for sale in 2009 and could damage transistor in the hybrid systems. The identified problem could turn on the warning lights and trigger the vehicle to shut down the power on a fail-safe mode.

Source: Nytimes.com (http://www.nytimes.com/2014/02/13/business/international/toyota-issues-another-recall-for-hybrids-this-time-over-software-glitch.html?_r=0)

34. Heartbleed the Web
In April 2014, the IT gang woke up to its worst nightmare, an emergency security advisory from the OpenSSL project warned about an open bug ‘Heartbleed’. The bug could pull out a chunk of working memory from a server and run their current software. While there was an emergency patch for it, tens of millions of servers got exposed by the time the patch got installed. This left everyone and anyone running a server in a crisis mode. This notorious bug left biggies like Yahoo, Imgur, and numerous others exposed to Heartbleed.


35. Apple pulls iOS 8 update
In September 2014, Apple faced an embarrassment after it had to pull out its new iOS software update only after a few hours of its release. This was post complains from iPhone users about calls getting blocked post the upgrade. The tech giant pulled out the update after a storm of complaints on Twitter, Apple user chatrooms. The update further disabled the feature where people could unlock their phones with fingerprints.

Source: Mirror.co.uk (http://www.mirror.co.uk/news/technology-science/technology/apple-pulls-ios-8-update-4320004)
On August 2014, almost 500 private pictures of celebrities got posted on social channels and sites like Imgur and Reddit. The images were apparently sourced through a breach of Apple’s Cloud services suite iCloud. However, later it was found that it could be due to a security issue in the iCloud API that enabled the access and innumerable attempts from try passwords. However, there have been recent reports of similar hacks into iCloud.


37. Air India diverts Boeing 787 flight
During an emergency stunt in Feb 2014, Air India diverted Boeing 787 plane to Kuala Lumpur when the pilots noticed a software glitch while on a flight from Melbourne to New Delhi. The Engineers were flown down from Hong Kong to fix the glitch and worked with Air India to resolve the same. It has been reported that 787 has been suffering such glitches and Boeing was aware about it.


Cigniti Technologies has collaborated with world's leading and innovative organizations/brands across diverse industries. Enterprises globally have trusted Cigniti’s independent software testing services and expertise for over a decade and have achieved speed to market, higher returns on investments (ROI), and enhanced quality deliveries in their overall QA initiatives. Connect (https://www.cigniti.com/contact-us) with our experts to bring speed and velocity to your QA practices with the best ideas in the testing space.

Application and Software failures dilute the brand’s credibility that is built over the years. Together, let’s work towards further strengthening your brand’s positioning, integrity and faith by ensuring Quality @ speed.

Cigniti Technologies (https://www.cigniti.com/blog/author/admin/)

Cigniti is a Global Leader in Independent Quality Engineering & Software Testing Services with offices in US, UK, India, Australia, and Canada.
About Us


View More ➔ (https://www.cigniti.com/about-us/)

Company

› About Cigniti (https://www.cigniti.com/about-us/)
› Management (https://www.cigniti.com/management/)
› Investors (https://www.cigniti.com/board-of-directors/)
› Awards & Recognition (https://www.cigniti.com/awards-recognition/)
› Clients (https://www.cigniti.com/clients/)
› Analyst Speak (https://www.cigniti.com/why-independent-software-testing/)
› Partners (https://www.cigniti.com/partners/)
› Careers (https://www.cigniti.com/cigniti-careers/)
› CSR (https://www.cigniti.com/corporate-social-responsibility/)
› Blogs (https://www.cigniti.com/blog)
› Podcasts (https://www.cigniti.com/podcasts/)
› E-Books (https://www.cigniti.com/e-books/)
› White Papers (https://www.cigniti.com/resources/white-papers/)

Industries

› Airlines (https://www.cigniti.com/airlines/)
› Banking (https://www.cigniti.com/banking/)
› Communications (https://www.cigniti.com/communications/)
› Ecommerce (https://www.cigniti.com/industries/ecommerce/)
› Energy and Utilities (E&U) (https://www.cigniti.com/eu-energy-and-utilities/)
› Financial Services (https://www.cigniti.com/financial-services/)
› Gaming & Entertainment (https://www.cigniti.com/industries/game-testing/)
› Healthcare (https://www.cigniti.com/healthcare-software-testing-services/)
› Insurance (https://www.cigniti.com/insurance/)
› Logistics (https://www.cigniti.com/industries/logistics/)

Horsemen of the Future

By Cigniti Technologies

Attaining Operational Efficiency with Independent Software Testing (https://www.cigniti.com/blog/attaining-operational-efficiency-independent-software-testing/)
By Cigniti Technologies

Do you need software metrics? (https://www.cigniti.com/blog/do-you-need-software-metrics/)
Quality Assurance

- Functional Testing (https://www.cigniti.com/functional-testing/)
- Test Automation (https://www.cigniti.com/test-automation/)
- Compatibility Testing (https://www.cigniti.com/compatibility-testing/)
- Crowdsourced Testing (https://www.cigniti.com/services/crowdsourced-testing/)
- Mobile Testing (https://www.cigniti.com/mobile-testing/)
- Performance Testing (https://www.cigniti.com/performance-testing/)
- Regression Testing (https://www.cigniti.com/regression-testing/)
- Security Testing (https://www.cigniti.com/security-testing/)

Digital Assurance

- Digital Assurance (https://www.cigniti.com/digital-assurance-testing/)
- Big Data Testing (https://www.cigniti.com/bigdata-testing/)
- ERP Testing (https://www.cigniti.com/erp-testing/)
- Medical Devices Testing (https://www.cigniti.com/medical-devices-testing/)

Next Generation Testing

- AI Testing (https://www.cigniti.com/ai-based-application-testing/)
- IoT Testing (https://www.cigniti.com/iot-application-testing)
- Blockchain Testing (https://www.cigniti.com/blockchain-application-testing/)

Quality Engineering

- Agile Testing (https://www.cigniti.com/agile-testing/)
- DevOps Testing (https://www.cigniti.com/devops-testing/)
- Performance Engineering (https://www.cigniti.com/services/performance-engineering/)
- Service Virtualization (https://www.cigniti.com/service-virtualization/)
- Test Data Management (https://www.cigniti.com/test-data-management/)

Advisory & Transformation

- Test Advisory Transformation (https://www.cigniti.com/test-advisory-transformation-services/)
- Testing Center of Excellence (https://www.cigniti.com/testing-center-excellence/)

BlueSwan

- Verita (https://www.cigniti.com/blueswan/#Verita)
- Velocita (https://www.cigniti.com/blueswan/#Velocita)
- Cesta (https://www.cigniti.com/blueswan/#Cesta)