



Downtime is Irrelevant: Navigating the 100% Uptime Myth

100% Uptime: The Impossible Quest

You may remember the Great Google Outage of 2014 – or maybe you don't. Service to Google applications Gmail, Documents, Calendar and Google+ was down for between 25 and 55 minutes for 10 percent of Google's users. ¹ Depending on who you ask, the outage was either devastating or entirely inconsequential.

Companies that depend on Google and its suite of business applications to be up and running around the clock certainly weren't happy to have their workdays disrupted for nearly a full hour. On the other hand, many system administrators would tell you that an hour of unplanned downtime is pretty good in the grand scheme of things.

This story is the perfect example of the conflict that exists between consumer expectations and IT reality. In an "always on" world, the public expects Internet-based services to be available 100 percent of the time – and will react with anger toward even a few minutes of downtime.

At the same time, IT professionals know that 100-percent uptime is a myth. Achieving uninterrupted availability is a bit like finding Bigfoot – a longshot at best, but most likely an impossibility.

Even so, consumer demand forces companies that provide Internet-based services to promise unrealistic levels of availability. So, how do you achieve 100-percent uptime and eliminate any possibility of downtime?

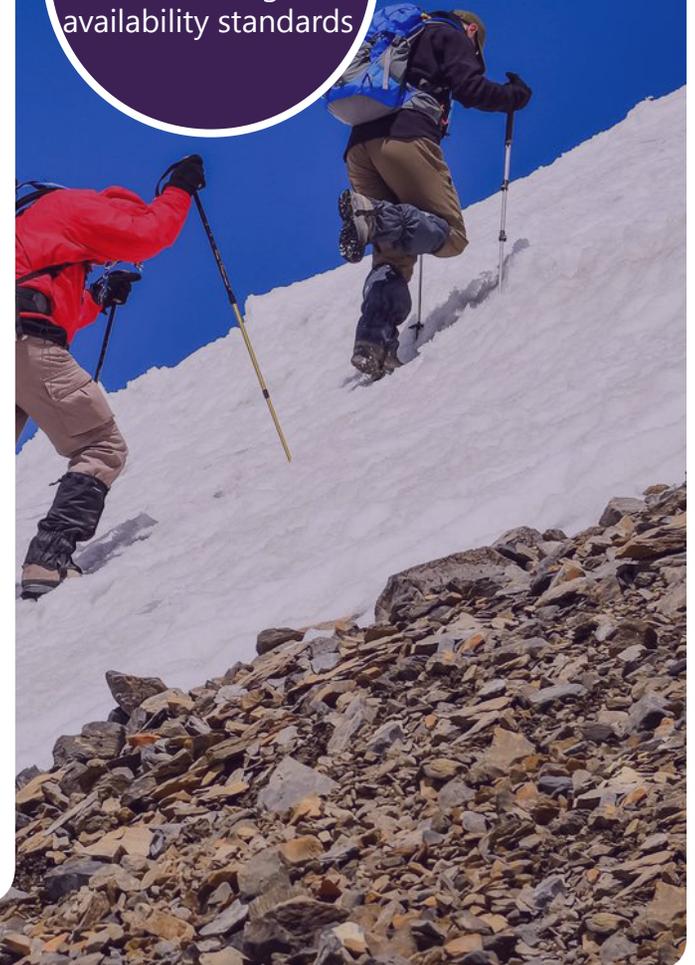
The truth is, you don't have to.

You can avoid chasing the 100-percent uptime myth by using technology to deliver a level of service availability your customers can be happy about, thus making the threat of downtime irrelevant. Here's how.



5.26 min

Downtime per year
to meet high
availability standards



THE ORIGIN OF THE UPTIME MYTH

How did we get here? Consumers have become dependent on mobile and cloud to the point that they can hardly live without them.

The technology companies that have introduced these on-demand services may have also inadvertently bred the expectation that their service will always be online. And, knowing how important availability is to customers, company leadership might draft service level agreements (SLA) that promise up to five-9s of service availability – the equivalent of just 5.26 minutes of downtime in an entire year. ²

That's a big point of frustration with system administrators, who ultimately have to fix the problem if service drops for any reason. Regardless, it's up to you to maintain a network that can support your company's always-on service. This is everyday life for system administrators whose companies provide a range of Internet-based services, including business, entertainment, gaming, media, retail and social media.

High consumer expectations have made it so that companies in any of these focus areas cannot afford an extended period of downtime. But what's the actual, tangible impact of interrupted service?

“The Internet has enabled a near-magical fantasy land for consumers, and consumers normalized this very, very quickly.” ³

*- David-Michel Davies,
Executive Director, Webby Awards*



DIVING INTO DOWNTIME



Downtime is becoming an increasingly expensive consequence of the on-demand service culture.

Businesses rely so much on on-demand technology that even small interruptions can be costly. On average, downtime costs companies \$5,600 per minute ⁵ and \$140,000 per incident. ⁶ For many companies, if the service stops, the money stops.

Downtime can also have a damaging effect on your company's reputation, which in turn can impact your bottom line even worse than the initial damage. Trying to appease customers who were angry with the multi-day PlayStation Network (PSN) outage over the Christmas holidays, gaming giant Sony offered users a 10-percent discount and a membership extension on a PSN subscription. ⁷

PlayStation has not released any official numbers on how much this promotion will cost them, but we can do some basic math to assess the potential damage. PSN reportedly has as many as 110 million user accounts,⁸ and most new video games cost around \$60, so if each user bought just one new video game at a 10 percent discount, Sony would lose around \$660 million in the deal.

Unexpected interruptions can also offer competitors an easy opportunity to profit from your misfortune. In August 2013, the New York Times' (NYT) website was knocked offline for about two hours by a server issue. Shortly after the outage started the Wall Street Journal jumped at the opportunity to lure NYT readers by offering two hours of paywall-free content on its own website. ⁹

**\$5,600/
minute**

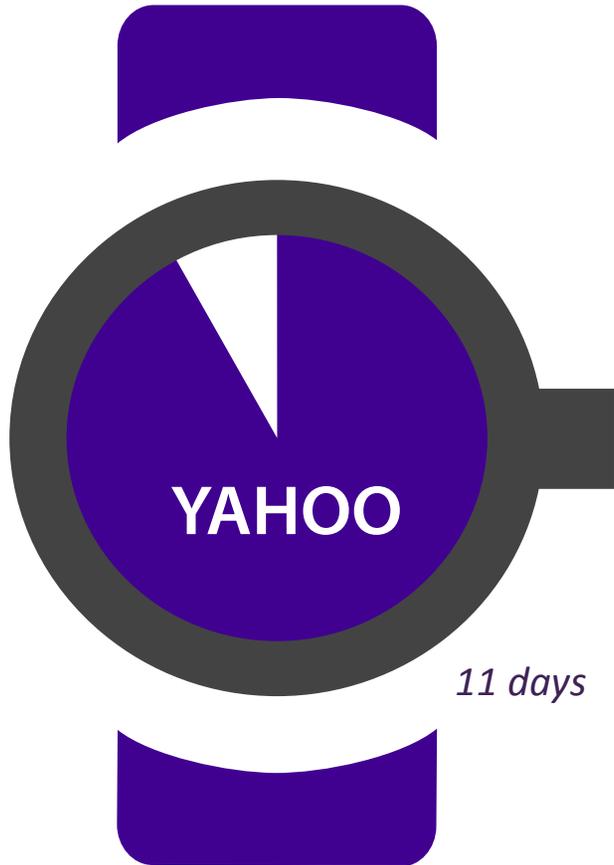


**\$140,000/
incident**

MAJOR SERVICE OUTAGES BY LENGTH

When Dropbox suffered a three-day outage in January 2014, many frustrated users left comments on a company discussion board saying that poor communication and slow response time encouraged them to cancel their subscriptions or consider alternative cloud storage services.¹⁰ That outage was the result of a “subtle bug” in software script, according to Dropbox, proving that even the smallest problem could trigger massive downtime and potential corporate risks.¹¹

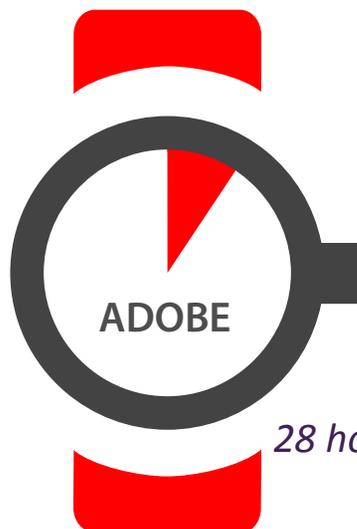
Yahoo endured scrutiny and embarrassment in late 2014 when a severed underwater sea cable led to a whopping 11-day email outage for Yahoo Mail users in the UK and the US East Coast.¹² The interruption seemed completely outside of Yahoo’s control – how could they possibly expect an underwater cable to be cut? – but one that they nevertheless paid for in the form of public outrage.



11 days



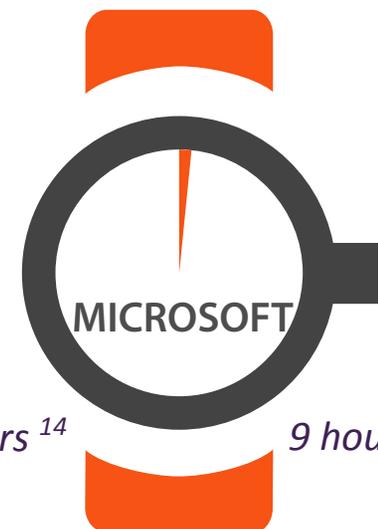
3 days



28 hours¹³



10 hours¹⁴



9 hours¹⁵

3 WAYS IT MONITORING SERVES AS YOUR INSURANCE POLICY

Downtime can happen to any company, of any size, and the financial and reputational consequences can be significant no matter how sterling your track record. And though some IT administrators have been able to achieve unprecedented levels of uptime without ever having a single outage, like the Sun 280R server that ran for 10 years straight ¹⁶ or the NetWave 3.2 server that ran for a world-record 16.5 years, ¹⁷ the fact is most services will suffer an outage at some point. So how do you limit the risks?

Anticipate Problems	 Plot network dependencies to visualize gaps	 Historical data predicts future capacity needs	 Plan ahead to limit downtime
Improve Visibility	 Central view of your entire IT estate	 Group key services to understand outage effects	 Identify parts that lead to underperformance
Recover Faster	 Instant notifications improve disaster response	 High Availability fails over to remote servers	 Integrate with Service Desk for immediate ticketing

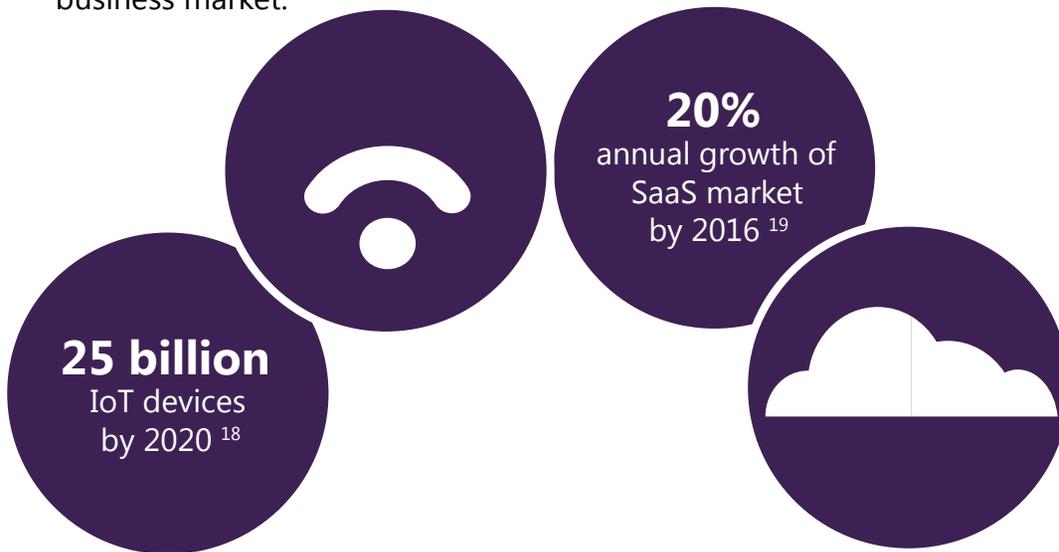
WHY THE UPTIME MYTH ISN'T GOING AWAY

Realistically, consumer expectations around high service availability aren't likely to change any time soon – if anything, they'll only increase. That's because technology is quickly becoming more ingrained with our everyday lives, meaning consumers and businesses will come to depend on IT for even the most non-technical tasks.

What's more, both the Software-as-a-Service (SaaS) and Internet of Things (IoT) markets are expected to expand considerably in the next few years.

This all adds up to a big problem for IT administrators – how do we keep all of these new devices running constantly in a world that requires instant, round-the-clock access? How do we cope with the uptime myth?

No company can afford to have its IT administrator sitting at a computer watching and waiting for service interruptions at all times of the day. A more practical solution is to rely on technology that can support your always-on infrastructure. Monitoring will be at the heart of keeping IT running, as new, innovative technology makes its way into the consumer and business market.



An Ideal Platform Needs...

Complete Coverage

Comprehensively monitoring all your devices across all locations with one tool ensures you can proactively manage service health and quickly react to interruptions. Autodiscovery saves time on implementation by automatically finding all the devices you need to monitor.

Flexible Integrations

Given the rising number of new connected devices, you need a flexible monitoring platform to easily support whatever the future brings. Integrations offer premium adaptability, so you can keep an eye on your growing IT infrastructure.

Deep Reporting

With real-time reporting, you gain deep visibility into all critical IT components. Based on system data, you can map your network, create recovery plans and prepare for any contingency. Tailor-made reports will help you spot exactly where to look, and what to look for, quickly and easily.

With Monitoring, XConnect Helps Customers Stay In Touch

As a worldwide telecommunications technology provider, XConnect relies on a huge IT estate to deliver Voice over Internet Protocol (VoIP), video, and unified communications to its customers on a 24/7 schedule.

The company used a number of monitoring solutions to track IT across four primary and three secondary sites, and those solutions would perform up to 1,800 service checks per minute.

Wanting to consolidate its monitoring under one platform, XConnect evaluated a number of solution providers. Systems engineer Noah Guttman said Opsview Enterprise was comprehensive enough to cover XConnect's full estate, as well as flexible enough for the company to build in new support as required.

On top of that, Opsview Enterprise offered the redundant slave clustering XConnect needed to limit downtime.²⁰

"For a true production environment, if you're serious about monitoring, you need to have reliability, scalability and intelligence. The foundations for Opsview are solid; it provides you with all the tools required to let you do exactly what you need to do."

*- Noah Guttman
Systems Engineer, XConnect*

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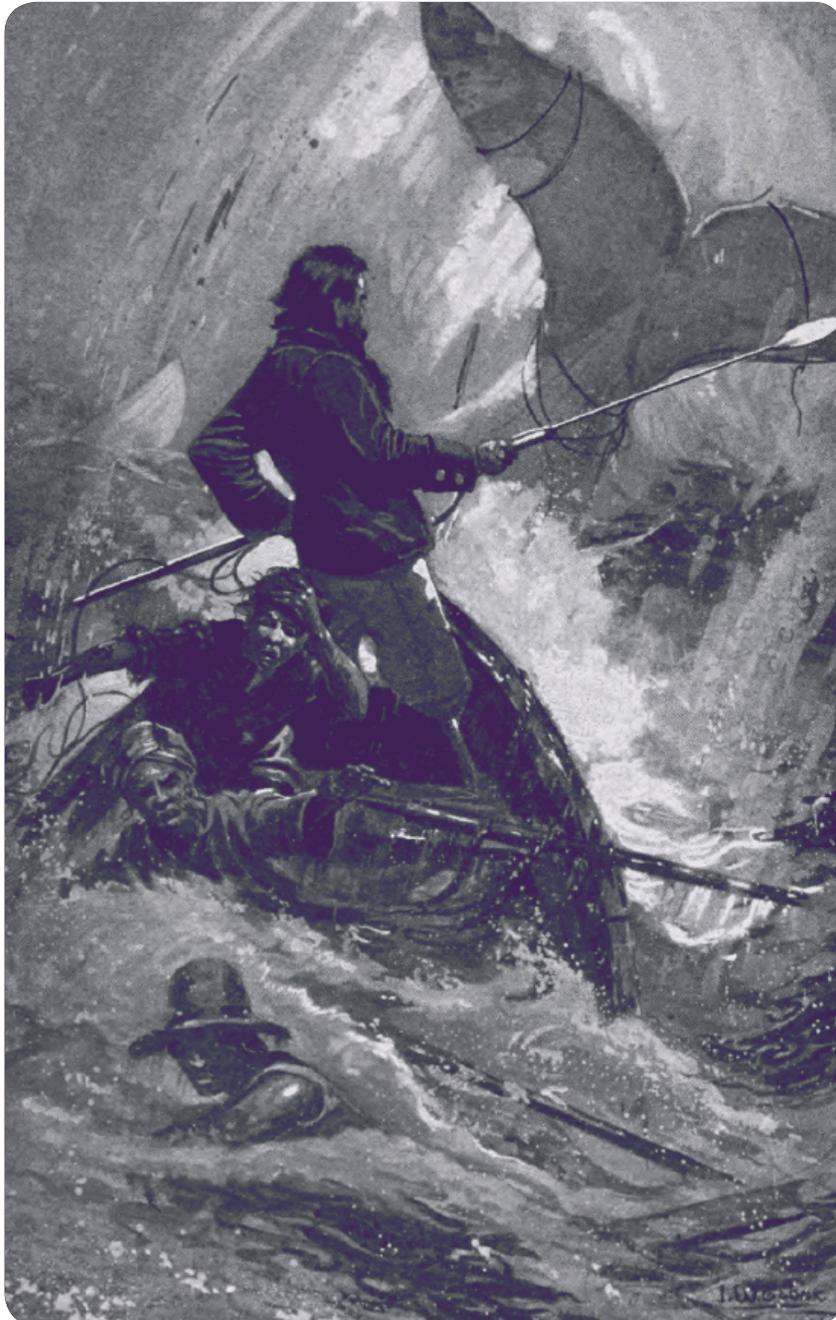
sites to monitor



1,800

service checks/
min

STOP CHASING THE WHITE WHALE



Even though we all know achieving 100-percent uptime is impossible, fighting public expectations is an even more futile endeavor.

Customers don't care about downtime thresholds, so debating the finer points of acceptable service interruption length is essentially irrelevant. Regardless of what's possible, your customers want your service to be online all the time, and if they are knocked off for any reason, they want to know how fast they'll be reconnected.

At the same time, that doesn't mean you have to chase Bigfoot.

Instead, you can build a well-monitored IT infrastructure that lets you proactively improve your system for maximum service levels and quickly respond to unexpected incidents before they become major headaches.

Downtime will happen – but your company doesn't have to be defined by it. With the help of IT monitoring, you can deliver a consistent and reliable level of service that feels like it meets that mystical 100-percent benchmark.



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Thanks for reading our eBook!

We're Opsview, an IT monitoring company that's helping take IT monitoring tools to the next level. We work with organizations around the world to deliver enterprise-grade IT monitoring that offers greater oversight of their IT environments and limits the risks of downtime.

Our highly configurable platform empowers you with everything you need to keep an eye on thousands of devices, from a multi-tenant architecture, to clean and detailed reports, to seamless integrations with the rest of your IT tools.

We believe that to keep your customers connected around the clock, you need a IT infrastructure that is agile and automated. Opsview is here to help.

What We Do



Real-time / Historic
SLA Reporting



Scalability



Dashboard GUI



Multi-tenant



Business Service
Monitoring



Autodiscovery



Network Traffic
Analysis

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