

Facebook Engineer Explains "Worst Outage in Over Four Years"

 [Share](#)  [Tweet](#)  [Share](#)



BY [JOLIE O'DELL](#)
2010-09-23 21:36:39 UTC

Facebook Software Engineering Director Robert Johnson took some time to explain to a curious public exactly why Facebook went down earlier today, calling the mishap "the worst outage we've had in over four years."

In a brief blog [post](#), Johnson discussed [today's downtime](#), which began around 11:30 a.m. PST. The site wasn't functioning again for most users until around 3 p.m. PST.

Today's outage was unrelated to another period of downtime [yesterday](#), when issues with a third-party networking provider caused problems for some users trying to connect to Facebook.

Johnson said the downtime today was caused by "an unfortunate handling of an error condition" involving an automated system designed to verify configuration values in the cache and replace invalid values with updated values from the persistent store.

Today we made a change to the persistent copy of a configuration value that was interpreted as invalid. This meant that every single client saw the invalid value and attempted to fix it. Because the fix involves making a query to a cluster of databases, that cluster was quickly overwhelmed by hundreds of thousands of queries a second. To make matters worse, every time a client got an error attempting to query one of the

databases it interpreted it as an invalid value, and deleted the corresponding cache key. This meant that even after the original problem had been fixed, the stream of queries continued.

The automated system for correcting configuration values has been turned off for now, and Facebook is reportedly exploring more, ahem, "graceful" methods of handling this in the future.

Johnson also notes that getting the feedback loop to stop was "quite painful," saying that the entire site had to be turned off to stop traffic to a particular database cluster.

We don't envy Facebook the at-scale disaster the site has just survived; 500 million users and a feedback loop adds up to some nasty business however you slice it. And Facebook's downtime problems aren't nearly as persistent and severe as those of [other social media staples](#) out there.

If you have any opinions on the subject — or horror stories of your own to share — please leave us a comment and let us know about them.

TOPICS: [DEV & DESIGN](#), [DEVELOPERS](#), [DOWNTIME](#), [ENGINEERING](#), [FACEBOOK](#), [POST MORTEM](#), [WEB APPS](#), [WEB DEVELOPMENT](#)

TECH

Tesla launches 'S3XY' short shorts, breaks its website

STAN SCHROEDER
JULY 06, 2020

Elon Musk wasn't kidding about launching Tesla shorts. Over the weekend, the Tesla CEO announced the new product on Twitter: Tesla short shorts with "S3XY" emblazoned on the back.

Tesla launches 'S3XY' short shorts, breaks its website

[CONTINUE READING](#) ▼

ENTERTAINMENT

Ennio Morricone, legendary film composer for 'The Good, the Bad and the Ugly', dies at 91

SAM HAYSOM
JULY 06, 2020

Ennio Morricone, the Italian composer best known for scoring the likes of Sergio Leone's The Good, the Bad and the Ugly and John Carpenter's The Thing, has died at the age of 91. Morricone passed away in a clinic in Rome several days after breaking his femur, according to the Guardian, who confirmed the death via his lawyer.

Ennio Morricone, legendary film composer for 'The Good, the Bad and the Ugly', dies at 91

[CONTINUE READING](#) ▼

CULTURE

The best books of 2020 so far, according to Amazon

NICOLE GALLUCCI
JULY 06, 2020

If you're searching for some new titles to add to your summer reading list, you've come to the right place. Amazon's annual Best Books of the Year (so far) list is here to help steer you in the direction of 2020's must-read novels, memoirs, and more. Each year, the editors at The Amazon Book Review highlight some of their favorite works that published from January to June.

The best books of 2020 so far, according to Amazon

[CONTINUE READING](#) ▼

TECH

Robot birds, each lighter than a golf ball, can fly autonomously in a flock for up to 7 minutes

EMMET SMITH
JULY 06, 2020

Created by Festo, the BionicSwift is a flying robot that can autonomously move in coordinated groups of five. The robot weighs only 42 grams and can fly uninterrupted for up to seven minutes using incredibly intricate artificial feathers and mimicking the motion of real birds.

Robot birds, each lighter than a golf ball, can fly autonomously in a flock for up to 7 minutes

[CONTINUE READING](#) ▼

TECH

Unlock American Netflix from anywhere in the world for less than £2 a month

JOSEPH GREEN
JULY 06, 2020

Unlock American Netflix from anywhere in the world for less than £2 a month

[CONTINUE READING](#) ▼

ENTERTAINMENT

The Schuyler Sisters break down the ongoing relevance of 'Hamilton'

SHANNON CONNELLAN
JULY 06, 2020

Hamilton landed on Disney+ on July 3 during what could be described as a boiling-point for America. But the Broadway musical's beloved songs have proven their staying power, many years later.

The Schuyler Sisters break down the ongoing relevance of 'Hamilton'

[CONTINUE READING](#) ▼

Get our hottest stories delivered to
your inbox.

Sign up for Mashable Newsletters to get personalized updates on top stories
and viral hits.

email

SIGN UP

MASTHEAD

JOB

ADVERTISE

SUBSCRIBE

MASHABLE SHOP CONTACT

PRIVACY

TERMS



Mashable

©2020 Mashable, Inc. All Rights Reserved.

Mashable, MashBash and Mashable House are among the federally registered trademarks of Ziff Davis, LLC and may not be used by third parties without explicit permission.