Here is the incident report for the search engine mistake that took place on April 1, 2016. We apologize to everyone who was harmed and recognize how this service issue has impacted our esteemed developers and users.

Issue Summary

Between 6:20 AM WAT and 7:27 AM WAT this morning, if you conducted a search on our website, you probably noticed that each and every search result was accompanied by the warning, "This may harm your computer." We sincerely regret causing our users any inconvenience; this was undoubtedly an error.

Timeline (all times west African time)

6:20 AM: Turn off monitoring system

6:30 AM: Server Restart begins

6:50 AM: 25% of Traffic restored

7:27 AM: 100% of traffic back online

Root Cause

What occurred? Simply put, human error. If a website is known to install malicious software covertly or otherwise, the website flags search results with the warning "This may harm your computer." We take this action to shield our users from visiting websites that might damage their computers. We use both manual and automated techniques to keep a list of these websites. We collaborate with a non-profit organization to establish the standards for keeping this list current and to develop straightforward procedures for webmasters to remove their sites from the list. At 6:20 AM WAT, the service outage started as a result of the servers repeatedly hanging and restarting while they were trying to recover.

Resolution and recovery

We update that list from time to time, and this morning we published one of those updates online. Unfortunately, because '/' expands to all URLs, the URL '/' was accidentally checked in as a value to the file. Fortunately, the issue was quickly identified and the file was reverted by our on-call site reliability team.

As some jobs began to gradually recover, we came to the conclusion that restarting the servers would hasten the overall recovery. We made the decision to gradually restart servers (at 6:30 AM) in order to prevent potential cascading failures from a large-scale restart. 25% of the traffic had been restored by 6:50 PM and 100% of the traffic had been directed to the API infrastructure by 7:27 AM.

The errors started to appear at 6:20 a.m. and started to disappear at 6:50 a.m. and 7:27 a.m. since we pushed these updates in a staggered and rolling fashion, the issue persisted for roughly 60 minutes for each individual user.

Corrective and Preventative Measures

1. Fixing the bug in the configuration generator to stop it from happening again and checking that no other critical configuration generation systems have the same bug.

2. Increasing the input validation checks for configurations to ensure that future configuration errors won't disrupt service.

3. Increasing targeted monitoring to find and identify the source of service failure more quickly.

We appreciate our team's quick work in finding this. Again, we apologize to anyone who was inconvenienced this morning. To stop it from happening again, we will carefully investigate this incident and implement more rigorous file checks.