



Information Systems Failure: Initial Post

Course: MSc Computer Science

Module: Object-Oriented Information Systems

Assignment: ePortfolio

Date: Monday 20th July 2021

Student ID: 126853

Post:

On November 25th 2020, Amazon Web Services (AWS) experienced a significant outage in the US-EAST-1 region. Kinesis, an AWS tool for real-time streaming data processing, was primarily affected by this outage (Causing dependent products including CloudWatch, Cognito, and EventBridge also to experience downtime) (Amazon Web Services, 2020). The downtime is believed to have been caused by a capacity upgrade, which ultimately caused the thread count to exceed a pre-set value in the Operating Systems configuration (Amazon Web Services, 2020).

For Amazon Web Services accounts created before May 17th 2017, the default region for created resources was either US-WEST-2, or US-EAST-1 (Amazon, n.d.). With the affected region being one of the defaults for some older accounts, a small percentage of their customers would likely have retained the default region setting (Increasing the scope of the affected sites).

Various high-profile sites had reported significant numbers of downtime reports throughout the day, with affected sites including Adobe, (Adobe, 2020) AutoDesk, Coinbase and The Washington Post (Verge, 2020). It was also reported that this downtime impacted some Home Automation/IoT based devices, including the Roomba vacuum cleaner offered by iRobot (iRobot, 2020).

Overall, this reinforces the centuries-old idiom “Don’t put all of your eggs in one basket”, suggesting that online providers should not wholly be reliant on the technology offered by one specific vendor. Instead, they should be splitting their products across multiple vendors, or at the very least, using multi-region replication

tools to include a degree of resilience, protecting both their brand as well as revenue from significant outages such as this.

Screenshot:

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References:

Amazon Web Services. (2020) Summary of the Amazon Kinesis Event in the Northern Virginia (US-EAST-1) Region. Available From: <https://aws.amazon.com/message/11201/> [Accessed 10th May 2021].

Amazon. (n.d.) Choose an AWS Region – Amazon EMR. Available From: <https://docs.aws.amazon.com/emr/latest/ManagementGuide/emr-plan-region.html> [Accessed 10th May 2021].

Peters, J & The Verge. (2020) Prolonged AWS outage takes down a big chunk of the internet. Available From: <https://www.theverge.com/2020/11/25/21719396/amazon-web-services-aws-outage-down-internet> [Accessed 10th May 2021].

Adobe Spark. (2020). Adobe Spark Outage – Twitter. Available From: <https://twitter.com/adobespark/status/1331644328947552263> [Accessed 10th May 2021].

iRobot. (2020). iRobot Outage – Twitter. Available From: <https://twitter.com/iRobot/status/1331667670383685635> [Accessed 10th May 2021].

References:

Amazon Web Services. (2020) Summary of the Amazon Kinesis Event in the Northern Virginia (US-EAST-1) Region. Available From:

<https://aws.amazon.com/message/11201/> [Accessed 10th May 2021].

Amazon. (n.d.) Choose an AWS Region – Amazon EMR. Available From:

<https://docs.aws.amazon.com/emr/latest/ManagementGuide/emr-plan-region.html>

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