Distributed Systems (DSy)

In the news

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31.03.2022

Distributed Systems & Blockchain in the News

- 2021: Developers spend most of their time figuring the system out [link]

  - Distributed systems can be complex, keep complexity low!

  - The more complex, the higher the attack surface

- 30.03.2022: Spring Core on JDK9+ is vulnerable to remote code execution [link]

  - Log4Shell scale issue?

  - Unclear situation: 2 different RCEs published recently. One has a CVE and the other doesn't.

    – CVE-2022-22963 → medium severity

    – RCE ? Spring4Shell? Medium, high, critical?

- "It'll be a fun weekend for security teams everywhere!"

- 29.03.2022: The roads not taken [link]

  - Complexity vs Simplicity

    – PoS in Ethereum is a complex system

    – "In general, it sometimes feels to me like Ethereum's biggest challenges come from balancing between two visions - a pure and simple blockchain that values safety and simplicity, and a highly performant and functional platform for building advanced applications"

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Distributed Systems & Blockchain in the News

- 29.03.2022: STACKIT: Die Cloud der Schwarz Gruppe startet in den Livebetrieb [link]

  - Challenge task: I did not spot a free tier

  - No login found, only "send us a message"

- 25.03.2022: `COPY --chmod` reduced the size of my container image by 35% [link]

  - Last lecture: OverlayFS, example, L05S10, improvement

- 25.03.2022: Unexpected space weather causing the reentry of 38 Starlink satellites in February 2022 [link]

- Network can fail

- Due to coronal mass ejections (CMEs), 50% more air drag

- 28.03.2022: Internet-Sicherheit: Anschubhilfe für DNSSEC [link]

  - Slow adoption, TLD: 91%, SLD: 1.5-2.9%

- 30.03.2022: Axie Infinity's Ronin Network Suffers $625M Exploit [link]

  - "Ronin validator nodes and Axie DAO validator nodes were compromised resulting in 173,600 Ethereum and 25.5M USDC drained from the Ronin bridge in two transactions (1 and 2). The attacker used hacked private keys in order to forge fake withdrawals." [details]

  - ~2 DeFi hacks a month, price impact

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