

Honey, I Broke The Things

Debugging gray failures in production!

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Overview

- In November 2019, migration from HAProxy to Envoy Proxy started.
- Due to some great Envoy features and some operational overheads with HAProxy.
- December 2021, migration was done.
- What/How/Why things broke during these migrations.

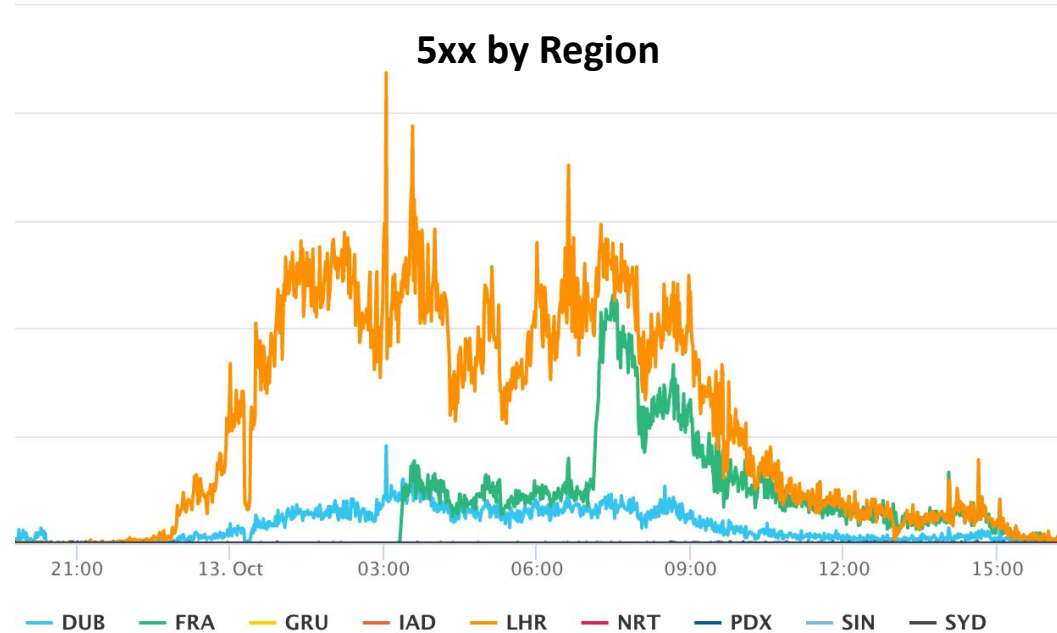
<https://slack.engineering/migrating-millions-of-concurrent-websockets-to-envoy/>





connect_failure OR connect-failure?

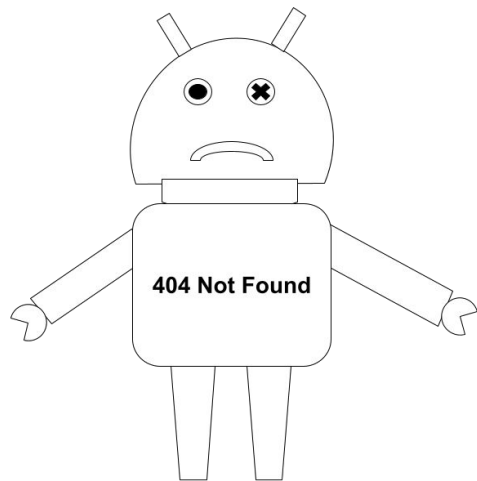
- Elevated 5xx for our web API endpoints.
- Are we retrying on connection failures?
- Typo in the retry string :(





Customer comes first...

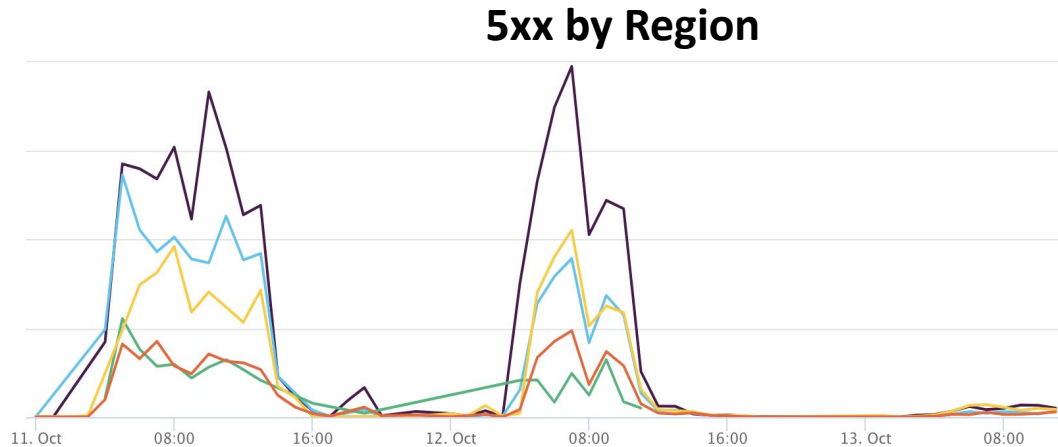
- Broke a customer bot/script! Oops!
- Only 25% of requests resulting in HTTP status code 404 (not found).
- Routing rule was matching on Host and not on Host:Port.





Elevated 5xx strikes back...

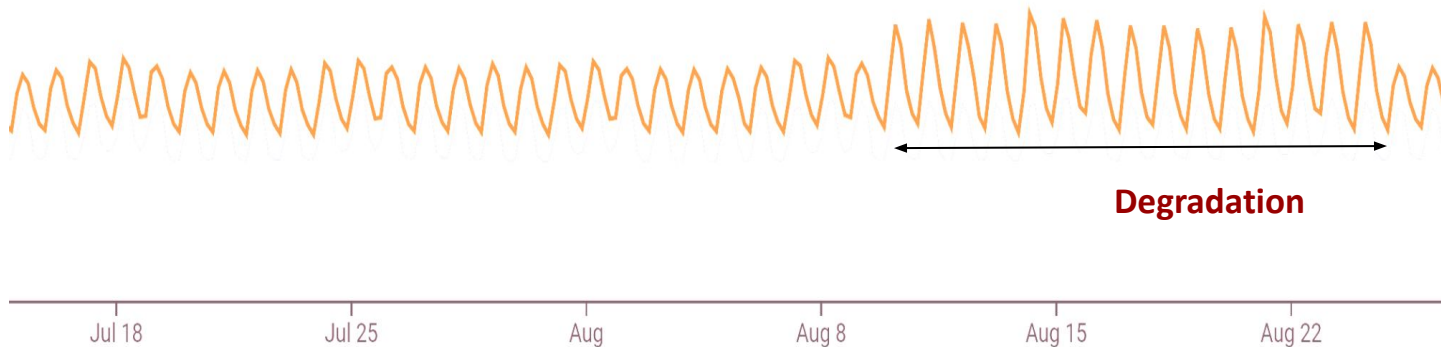
- Elevated 5xx error rate for all our files traffic.
- Are we retrying on **connect-failure**?
- HAProxy vs Envoy Proxy config parity.





You all get latency...

- 12% extra latency for every API request across all Slack clients.
- Regression aligned with the envoy migration rollout.
- Envoy tracing is great!





TLS Session Ticket Keys

- Mechanism to allow clients to reuse TLS sessions when they reconnect.
- Speeds up TLS handshakes and improves end user latency.
- For Slack, especially useful for customers connecting from Asia Pacific (APAC) region.

Refer to [RFC 5077](#) for more information.





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- Parity first, improvement second.





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- keep rollback/revert plan fast and simple.





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This is the way...

- Parity first, improvement second.
- keep rollback/revert plan fast and simple.
- evaluate risks and manage expectations accordingly.
- curl is my best friend.



Thank you :)

Keep calm and don't panic (and be kind)

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