HBO max

DTC Security

Advanced Signal Sciences Investigation/Blocking

01 December 2021

Agenda

Not-so-clean blocks

Last time we just looked at “happy path”

“The QA environment is broken!”

*Or, how to tell if *we’re* blocking something*

“What are all these 403s”

When your starting point is just request count of certain statuses…

Q&A

Not-so-clean blocks

- **Success rate is suspiciously high for a given header order**
  - Subjective but let's say north of 5%
    - What paths are they hitting?
    - What do User-Agents look like?
      - Do not make decisions off UA alone though
    - LOGINATTEMPT-tagged traffic versus not
    - Are compromised usernames being hit an outsized number of times to obfuscate "true" success rate?
    - Follow traffic all the way to other supporting logs
      - Such as reCAPTCHA or tokens

“The QA environment is broken!”

- **Need (IP address OR username) and approx. timestamp at a minimum**

- **Is traffic showing up in Signal Sciences?**
  - Not blocked by Fastly then
    - Decreasingly relevant but still
  - Response code 403 typically suggests Magellan denial
    - MaxMind geo, MaxMind VPN, or ASN block that differed from Fastly edge

- **index=*prod* <IP_ADDRESS_OR_OTHER_IDENTIFIER_HERE> for HBO Splunk**
  - **Example Splunk via Slack thread**
  - Some **Kibana starters** too
  - Just throw the unique string on the end in both cases, basically

Smart device client

Billions of daily requests

fastly

comet.api.hbo.com
gateway.api.hbo.com
(*N* variations …)

Signal Sciences

WAF

Tokens service

reCAPTCHA Enterprise

User table

Android & iOS

Mobile client

reCAPTCHA Enterprise

play.hbomax.com

www.hbomax.com

Web browsers

Millions of daily requests

fastly

commerce-experience.api.hbo.com

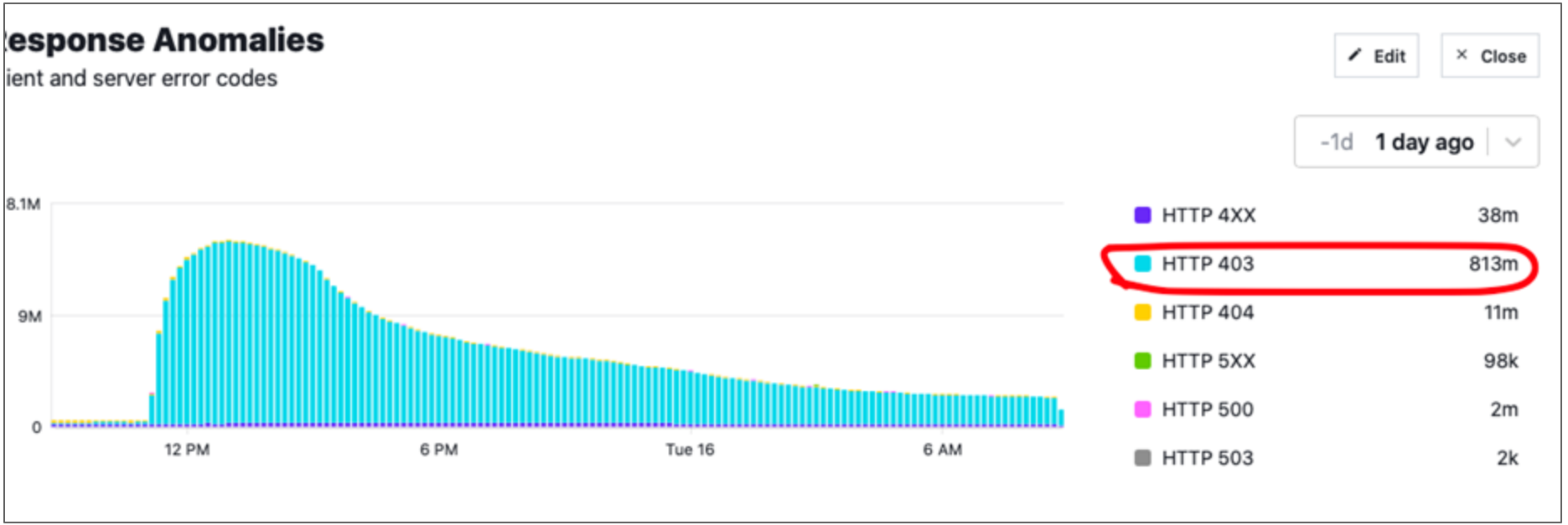
AWS WAF

Buy flow login service

reCAPTCHA Enterprise

reCAPTCHA Enterprise

“What are all these 403s”



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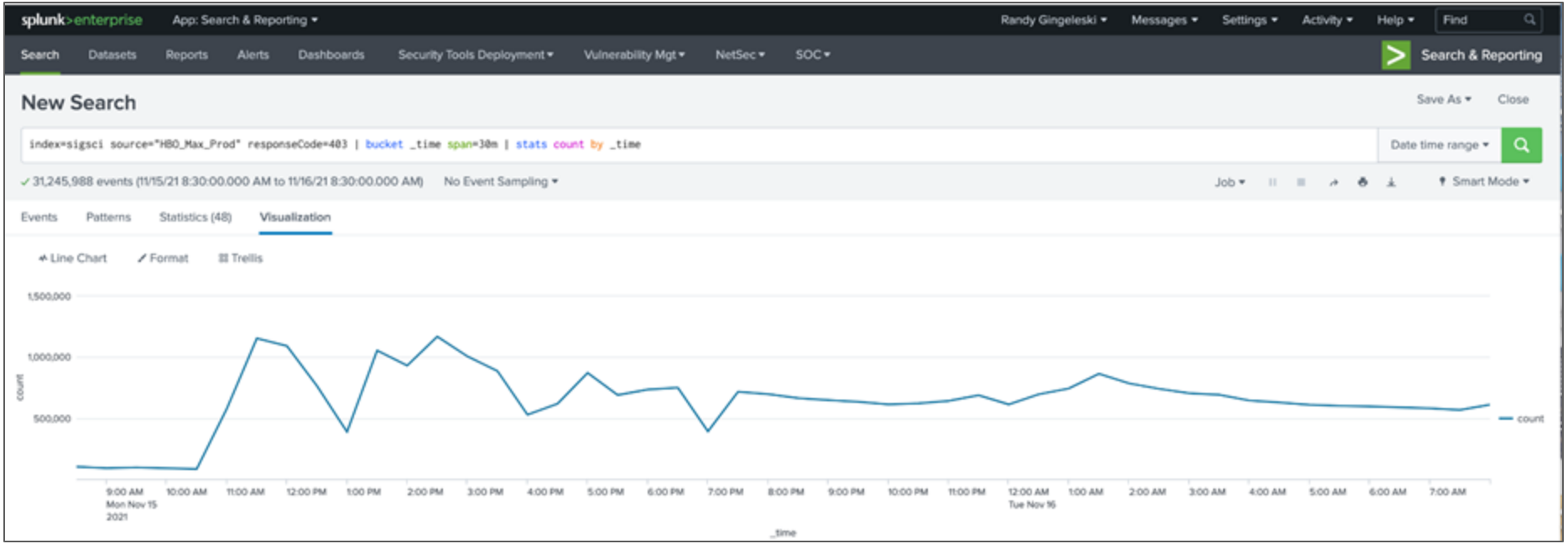

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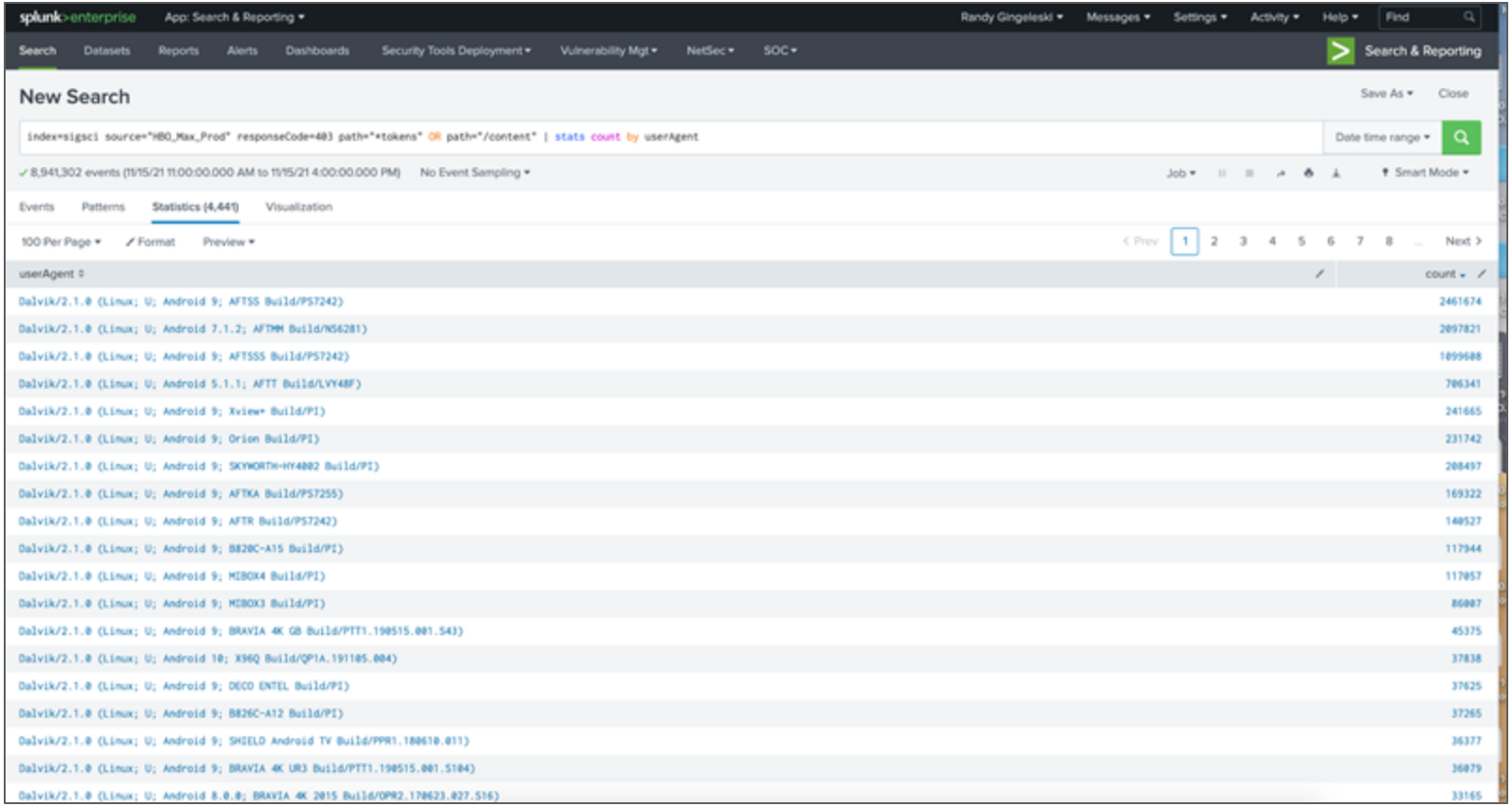

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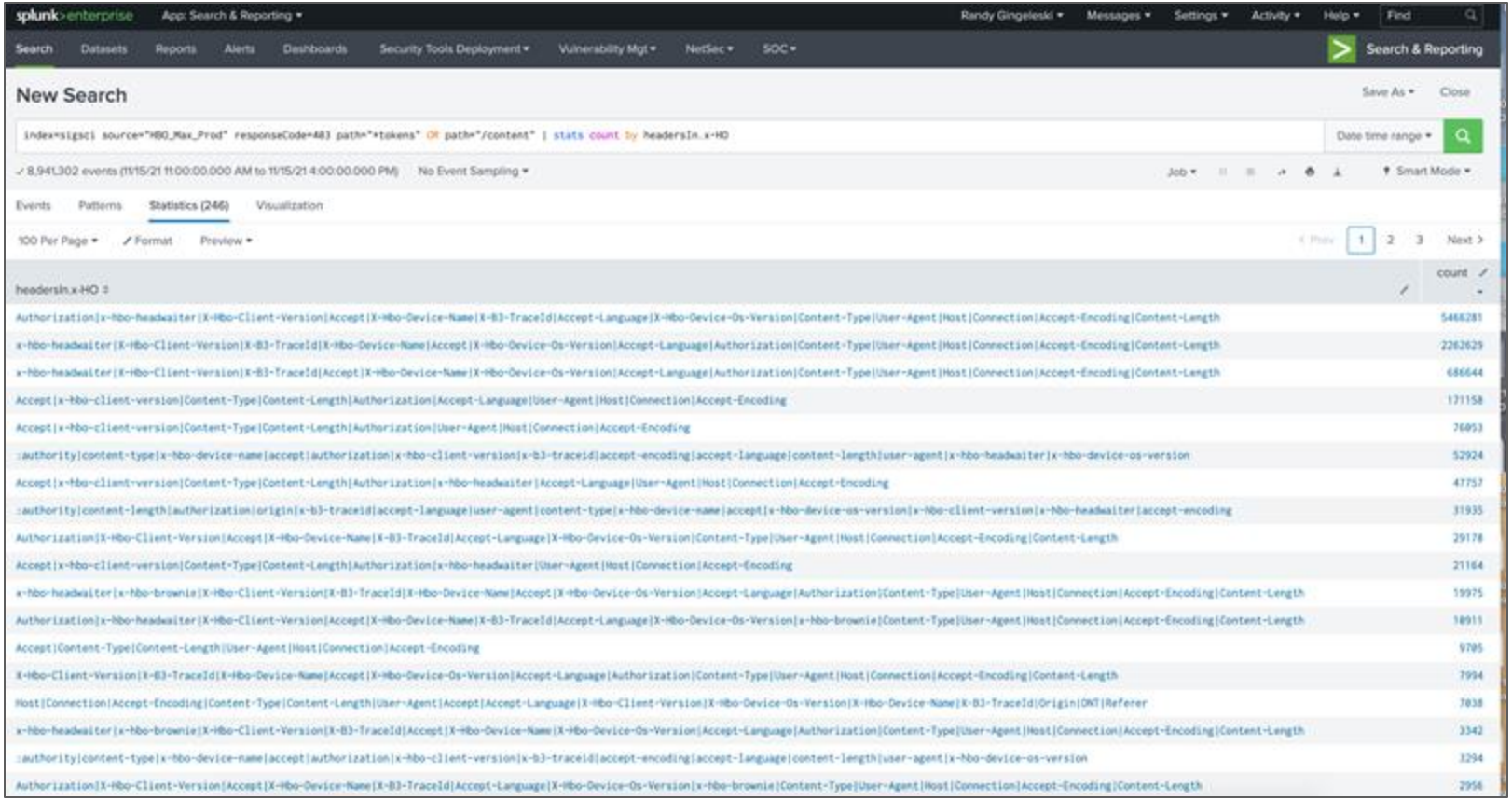

Questions?