

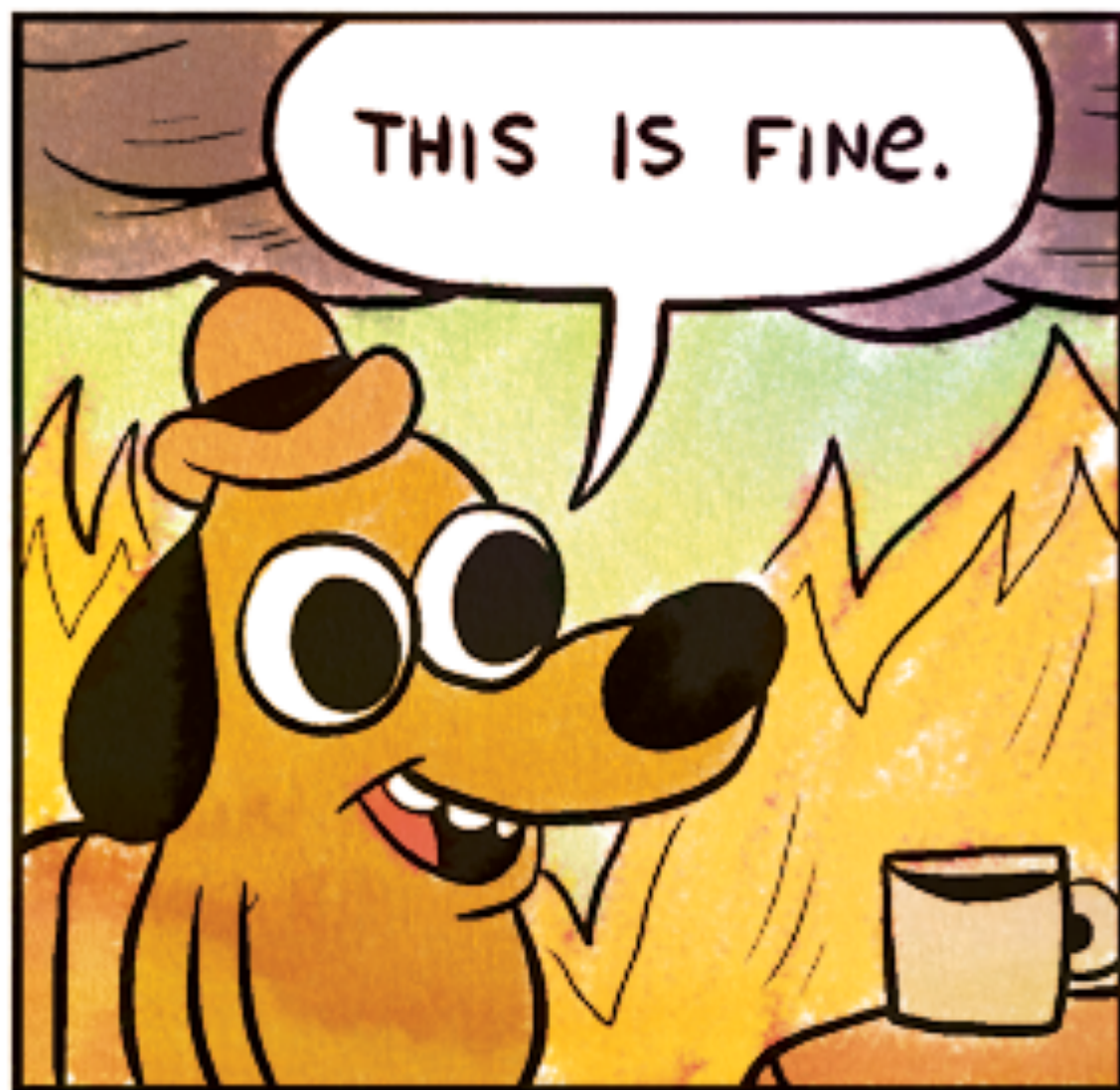
10. – 13.12.2018
Frankfurt am Main



Philipp Krenn, @xeraa

Elastic
Auditd für alle

#ittage



Learn about a breach

FROM THE PRESS OR USERS

Learn about a breach

ATTACKERS ASKING FOR A RANSOM

Learn about a breach

CLOUD PROVIDER'S BILL

Learn about a breach

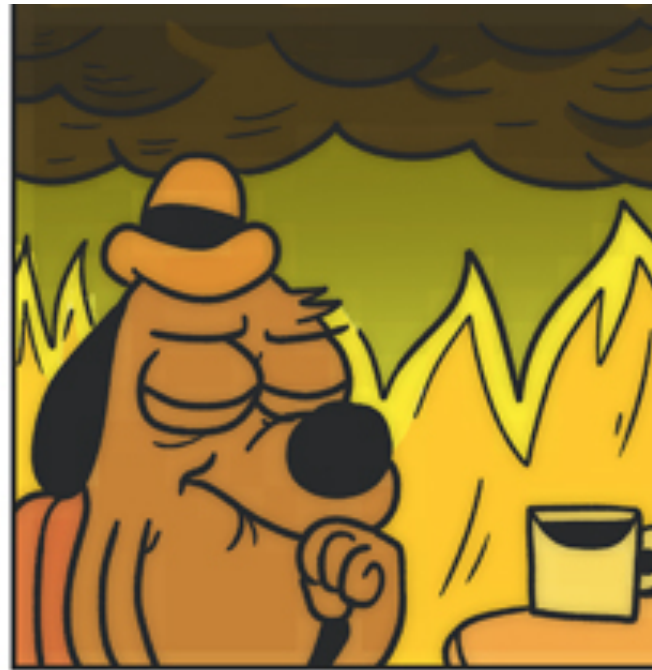
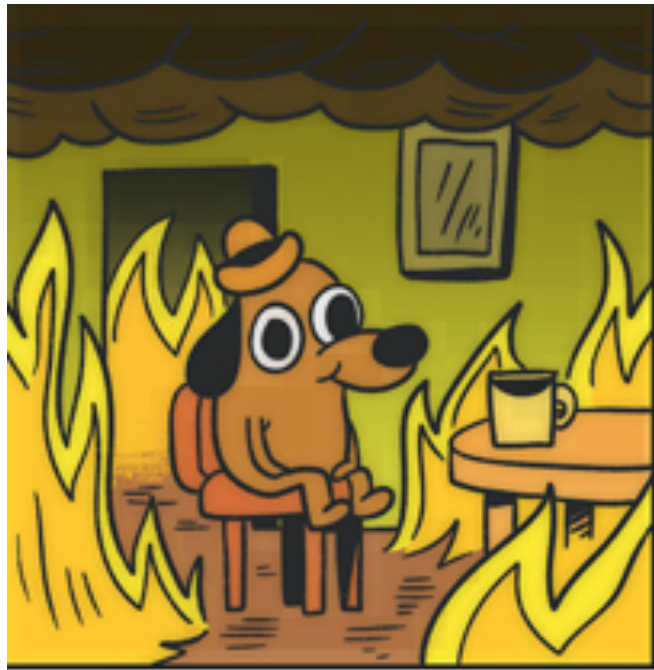
YOURSELF AFTER THE FACT

Learn about a breach

YOURSELF BUT UNSURE ABOUT HARM

Learn about a breach

YOURSELF & YOU CAN PROVE NO HARM



NO SILVER BULLET 🔫



UDITD

<https://github.com/linux-audit>

"auditd is the userspace component to the Linux Auditing System. It's responsible for writing audit records to the disk. Viewing the logs is done with the ausearch or aureport utilities."

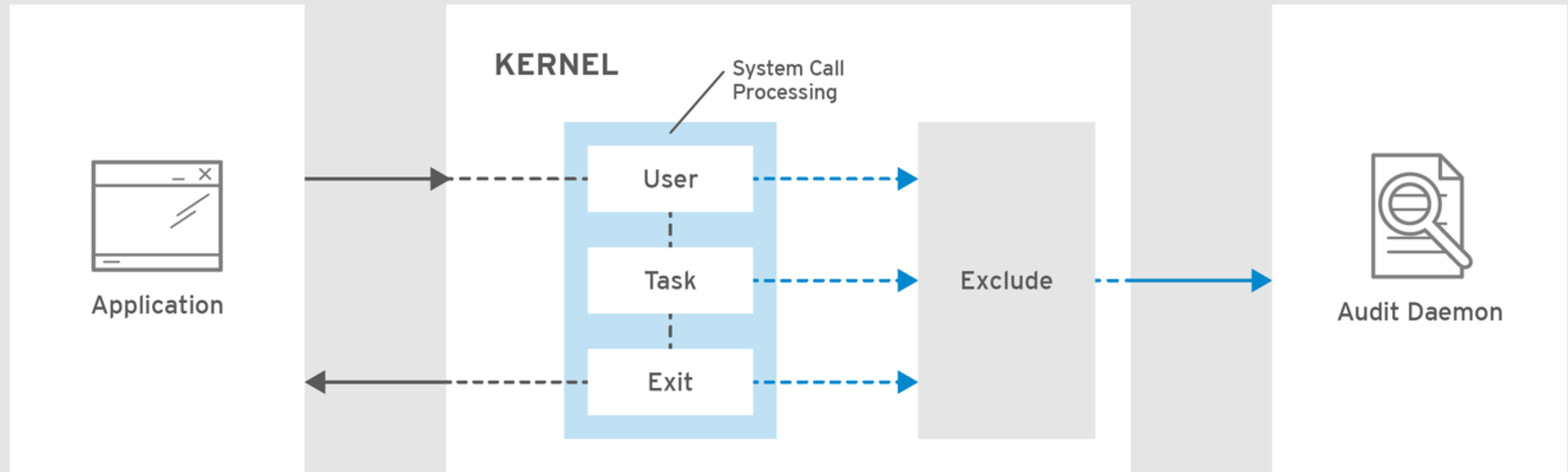
MONITOR

File and network access

System calls

Commands run by a user

Security events



RHEL_453350_0717

DEMO

UNDERSTANDING LOGS

https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/7/html/security_guide/sec-understanding_audit_log_files

MORE RULES

<https://github.com/linux-audit/audit-userspace/tree/master/rules>

NAMESPACES WIP

<https://github.com/linux-audit/audit-kernel/issues/32#issuecomment-395052938>

ALL THE THINGS!



Problem

HOW TO CENTRALIZE?

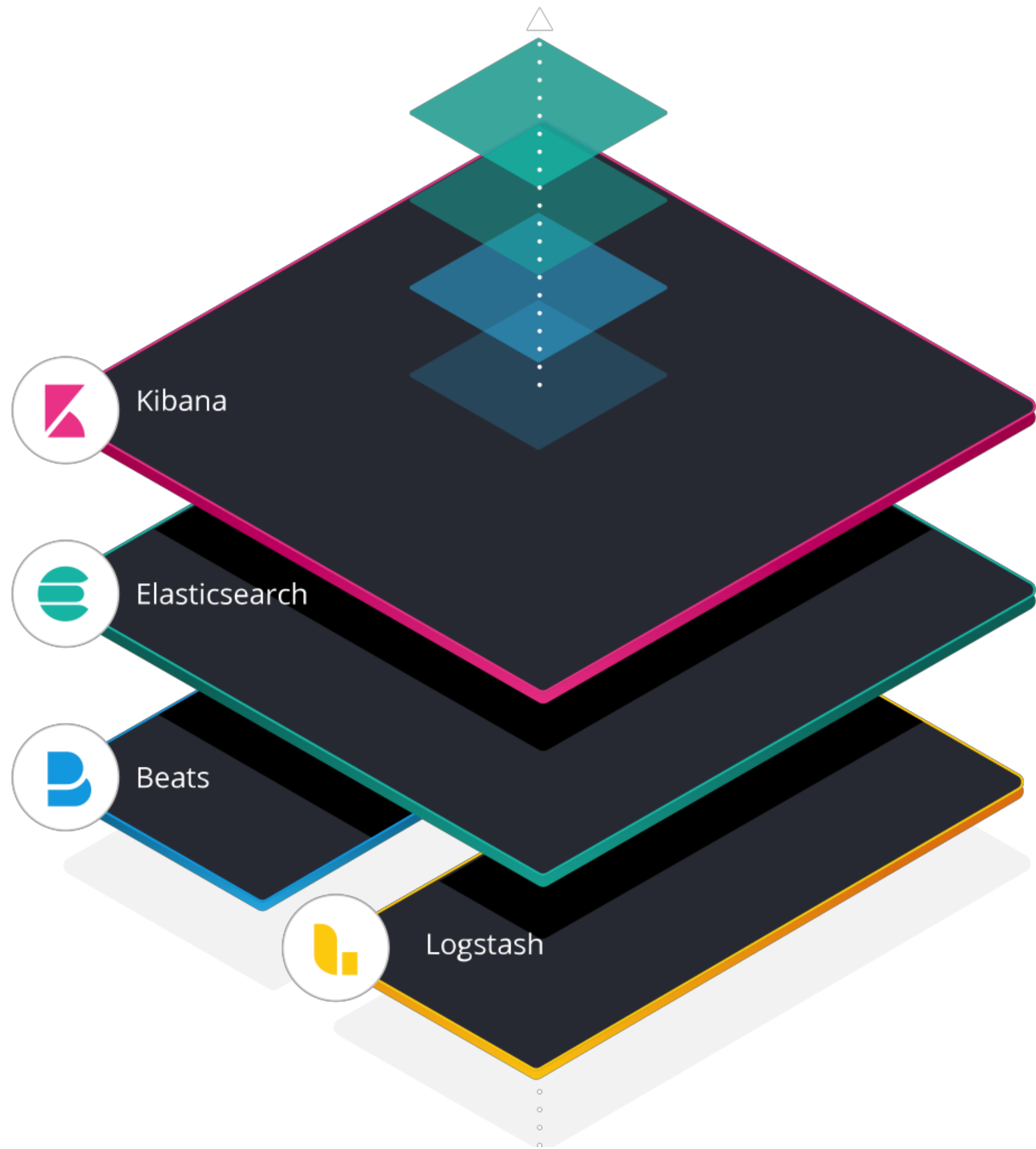


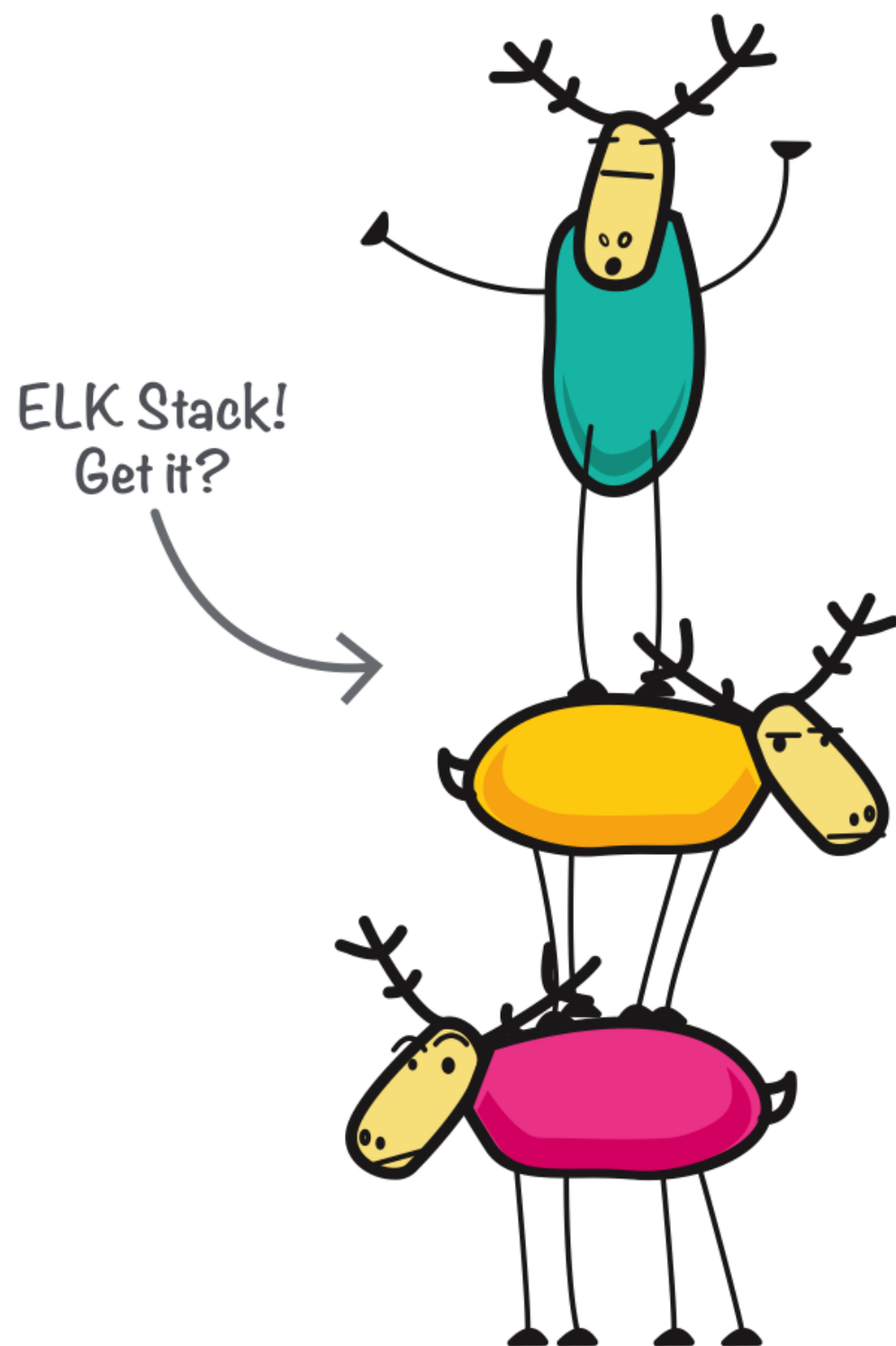
elastic

Developer 🥑

Disclaimer

I BUILD **HIGHLY** MONITORED HELLO
WORLD APPS



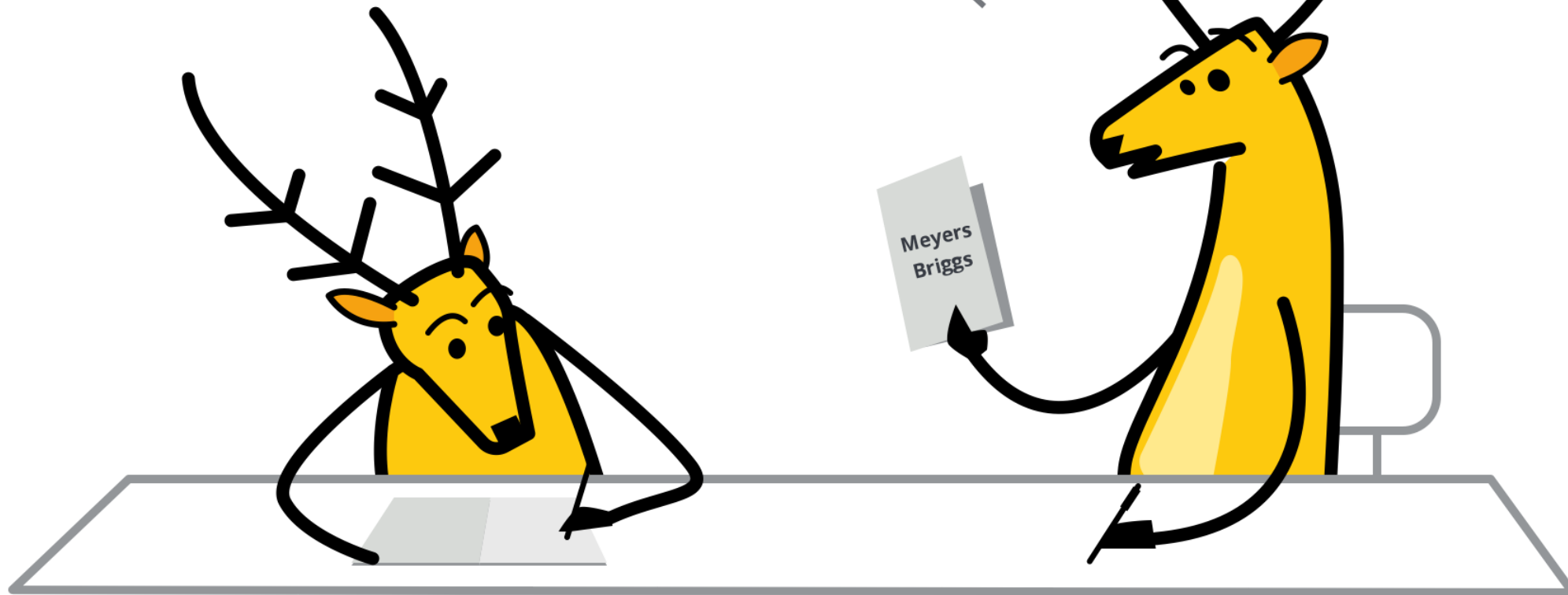


E Elasticsearch

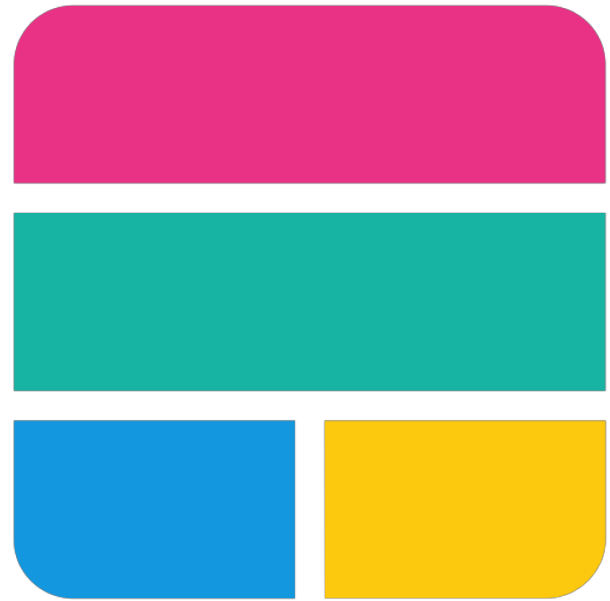
L Logstash

K Kibana

*Apparently, I'm an
ELKB personality.*







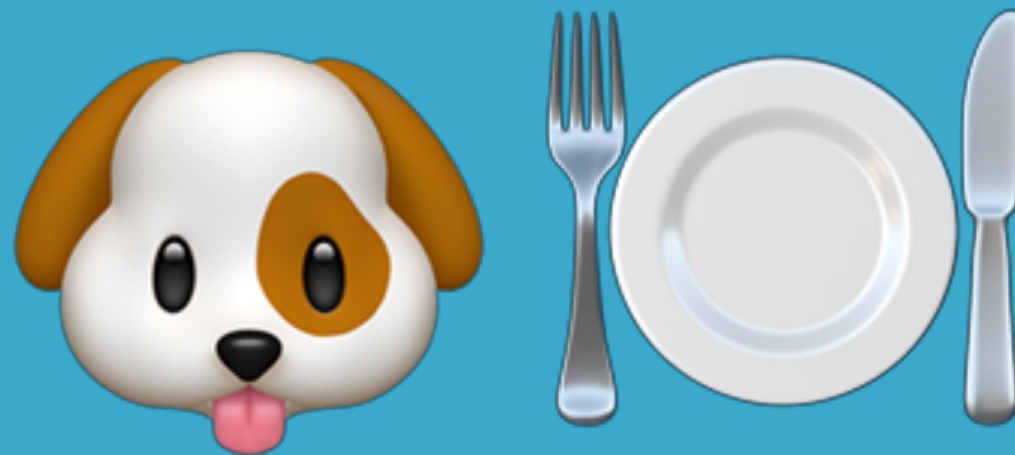
elastic stack



open source

FILEBEAT MODULE: AUDITD

DEMO







elastic cloud

<https://cloud.elastic.co>

AUDITBEAT

AUDITD MODULE

Correlate related events

Resolve UIDs to user names

Native Elasticsearch integration

AUDITD MODULE

eBPF powers on older kernels

Easier configuration

Written in Golang


Docker metadata enrichment

Enhance add_docker_metadata to enrich based on PID

#6100

Merged exekias merged 2 commits into `elastic:master` from `andrewkroh:feature/libbeat/docker-pid-metadata` on 18 Jan

Conversation 10 Commits 2 Checks 0 Files changed 22 +424 -70



andrewkroh commented on 17 Jan

Member + 🗨️ ✎️ ⚠️


This PR enhances `add_docker_metadata` with the ability to enrich events containing process IDs.


The processor uses cgroup membership data from `/proc/pid/cgroup` to determine if the process is running inside of a Docker container. It caches the PID -> CID mapping for 5 minutes (based on time of last access).


The default configuration sets `match_pids: [process.pid, process.ppid]`. It falls back to the PPID in case the process has exited before the processing occurs.

🎉 1

Reviewers ⚙️

 rufin 🗨️

 exekias 🗨️

 dedemorton 🗨️

Assignees ⚙️

No one—assign yourself

Labels ⚙️

`:Processors`

DEMO

FILE INTEGRITY MODULE

inotify (Linux)
fsevents (macOS)
ReadDirectoryChangesW (Windows)

hash_types

blake2b_256, blake2b_384, blake2b_512, md5, sha1,
sha224, sha256, sha384, sha512, sha512_224, sha512_256,
sha3_224, sha3_256, sha3_384, sha3_512, xxh64

DEMO

CONCLUSION



AUDITD
AUDITBEAT
LOGS, DASHBOARDS, ...

TRY

<https://dashboard.xeraa.wtf>

SSH: elastic-user@xeraa.wtf secret

CODE

[https://github.com/xeraa/
auditbeat-in-action](https://github.com/xeraa/auditbeat-in-action)

QUESTIONS?

Philipp Krenn

@xeraa

PS: Sticker