KCD Austria
2024

Cutting Edge Event-Driven Architecture on Kubernetes

Taking Wasm for a Spin

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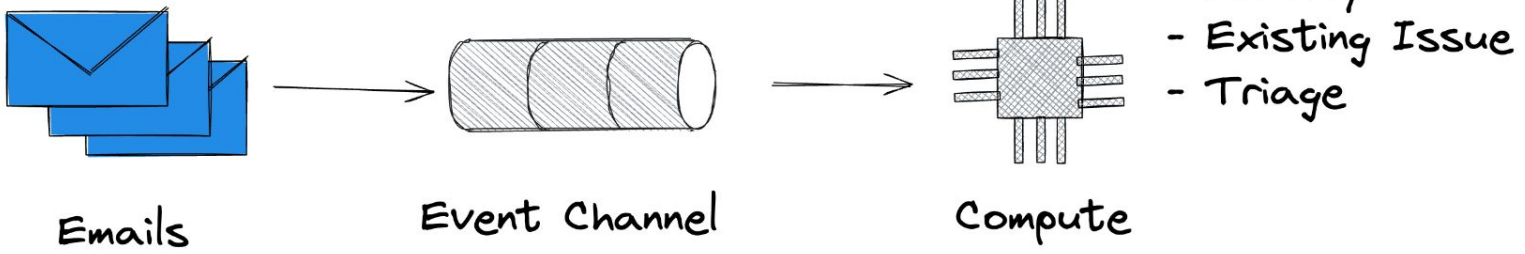
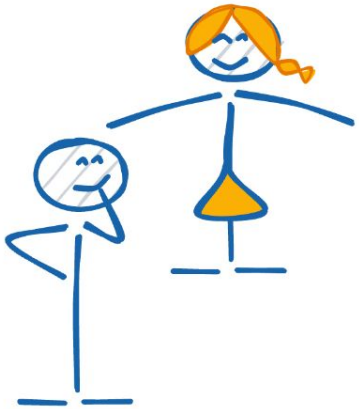
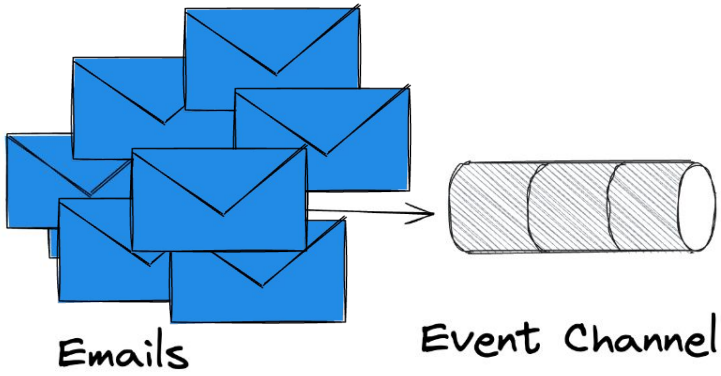
You got Mail!

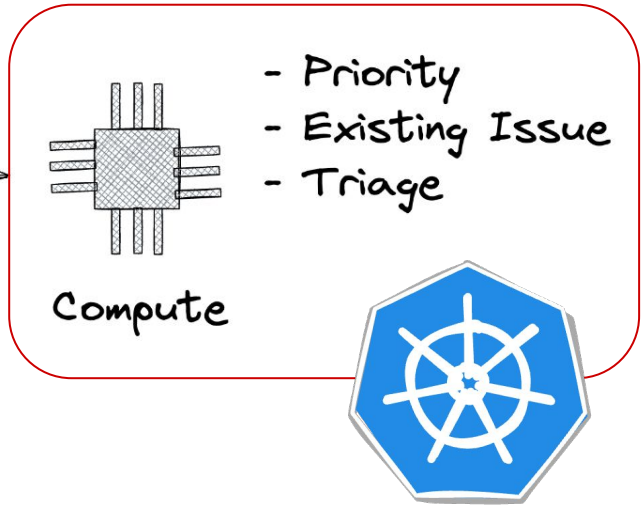

Emails
Event Channel
Compute
- Priority
- Existing Issue
- Triage

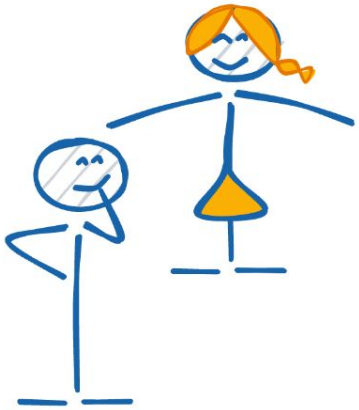


You got Mail!

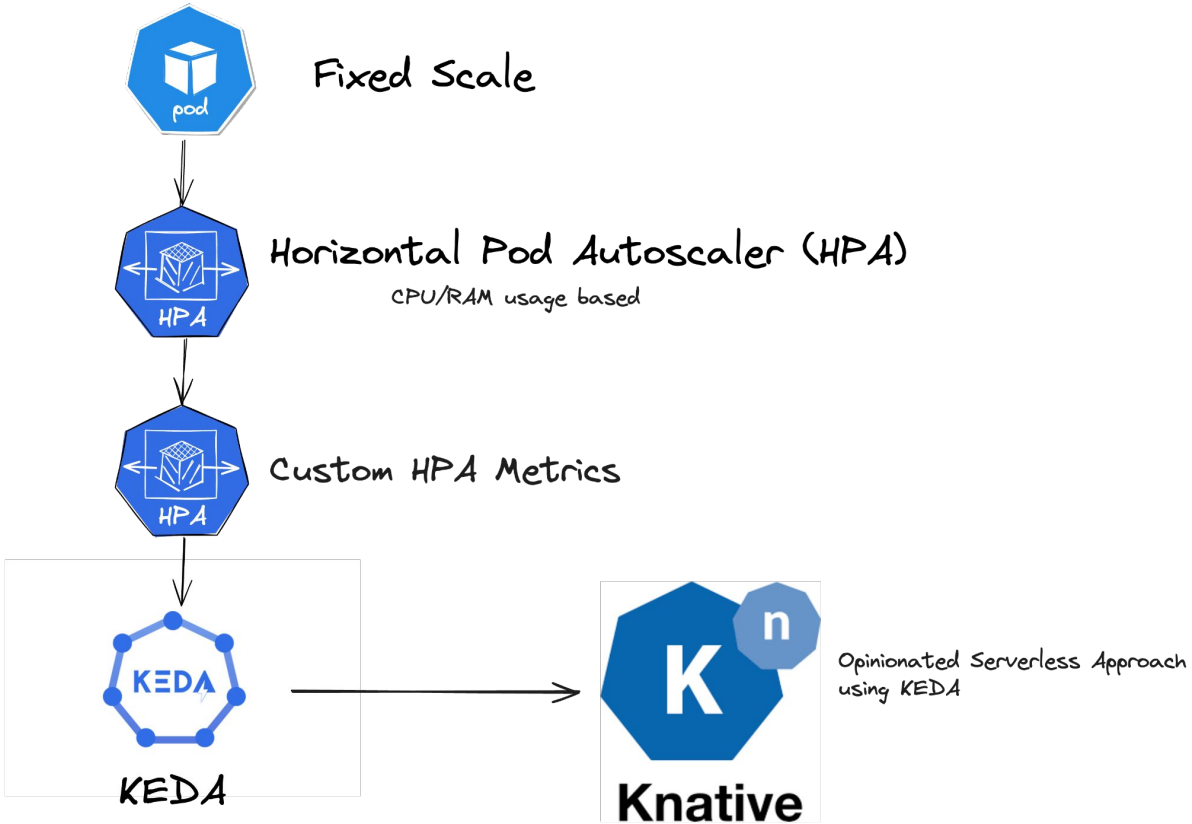


How do we scale?

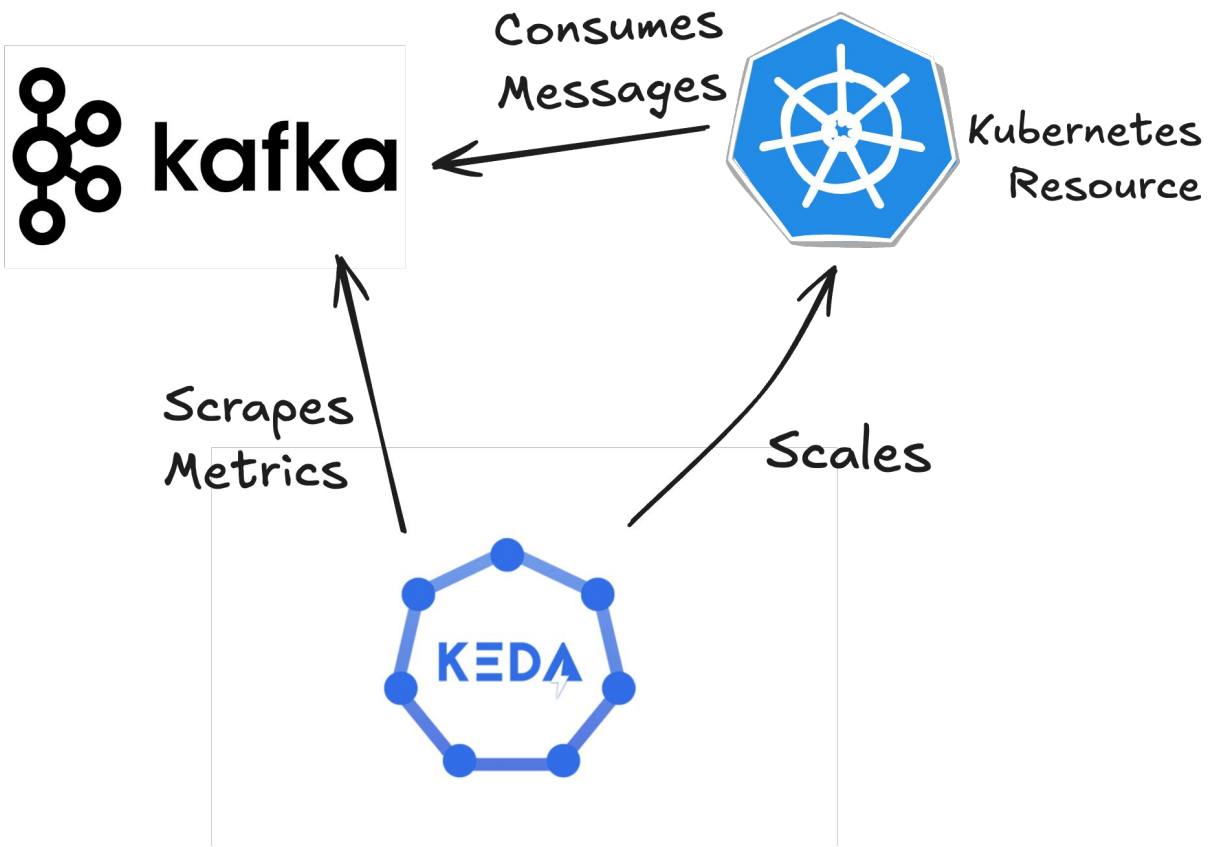




Scaling Event-Driven Architecture on Kubernetes



How does KEDA work?



Now that we have scaling

How do we make it fast?

DISCLAIMER: Cutting Edge

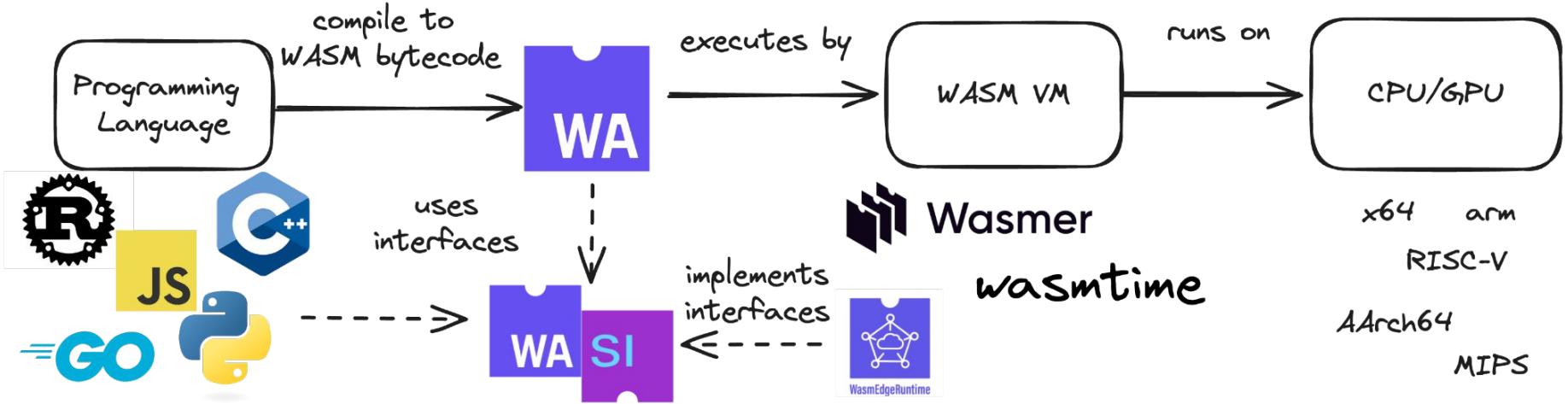
Working with WebAssembly on Kubernetes may lead to unexpected emotional distress. Side effects may include, but are not limited to:

- Frustration from complex configurations
- Anxiety due to compilation issues
- Despair when debugging across multiple layers of abstraction
- Euphoria upon successful deployment (followed by crashes)

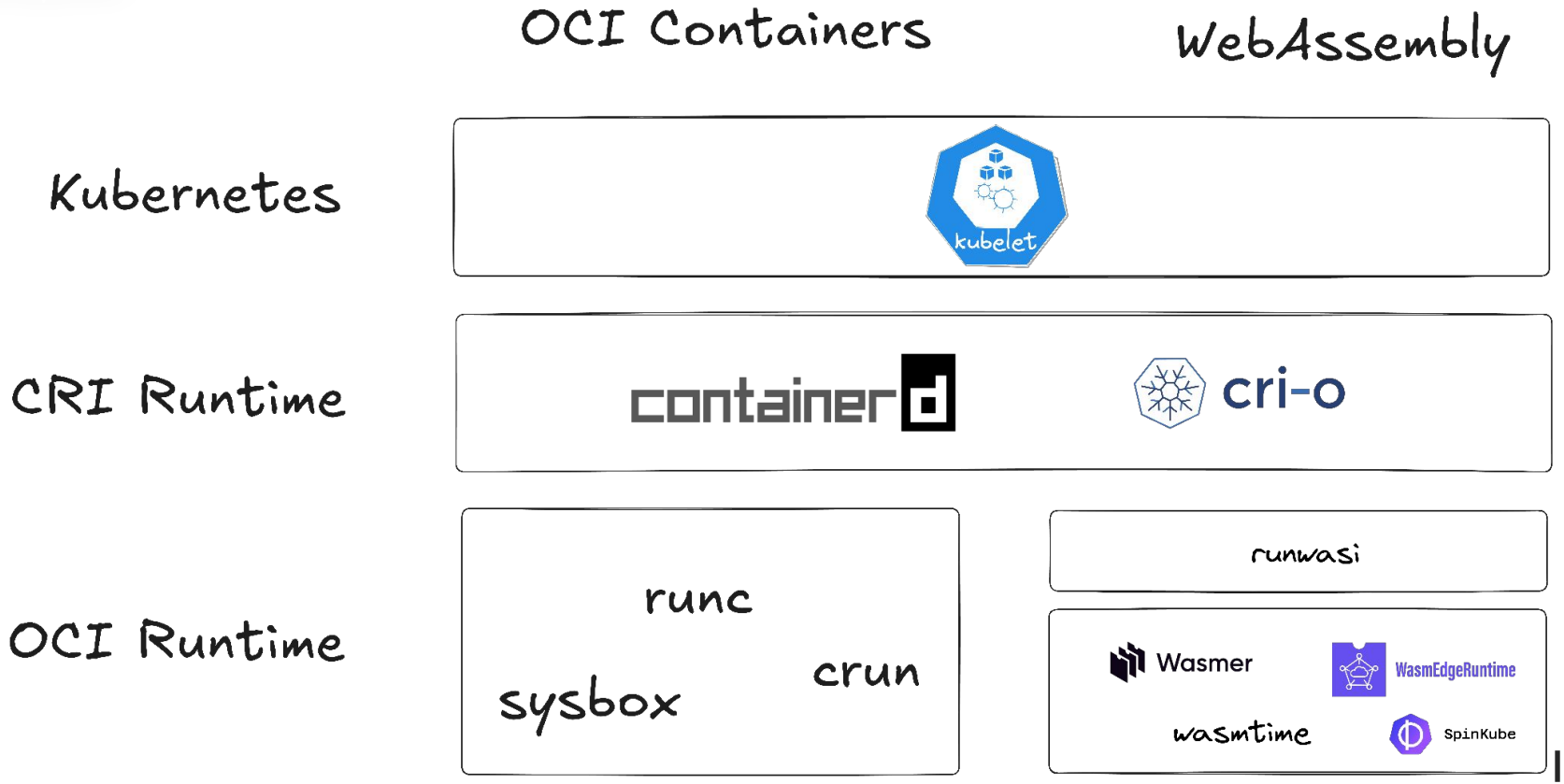
Users are advised to proceed with caution and maintain a sense of humor. Remember: it's just code, not a reflection of your worth as a human being.

Consult your nearest DevOps therapist if symptoms persist for more than two sprints.

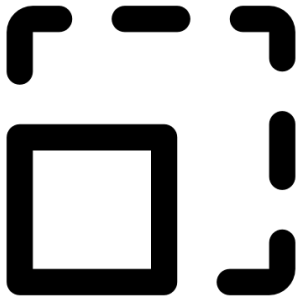
WebAssembly in 2 min



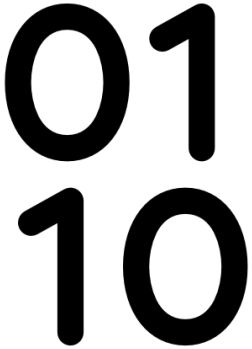
WebAssembly on Kubernetes



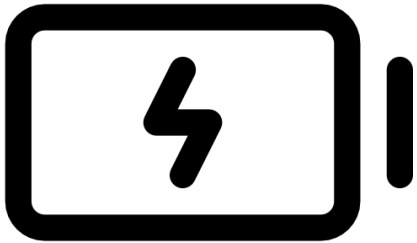
How does WebAssembly (Wasm) help with speed?



Tiny Images



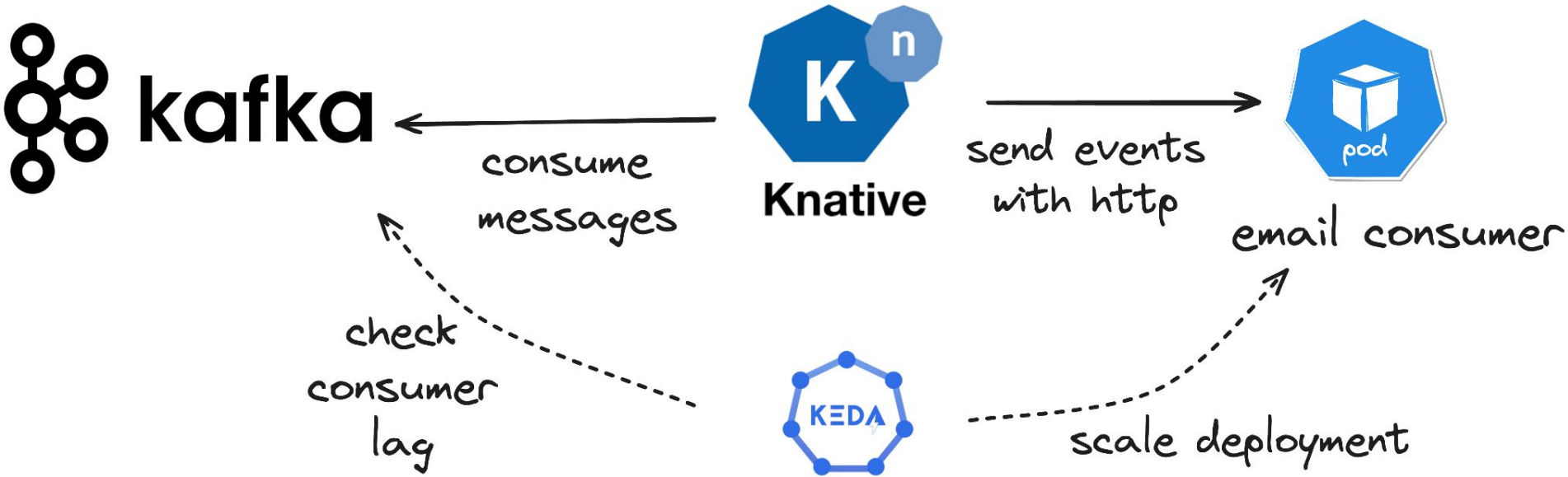
Bytecode

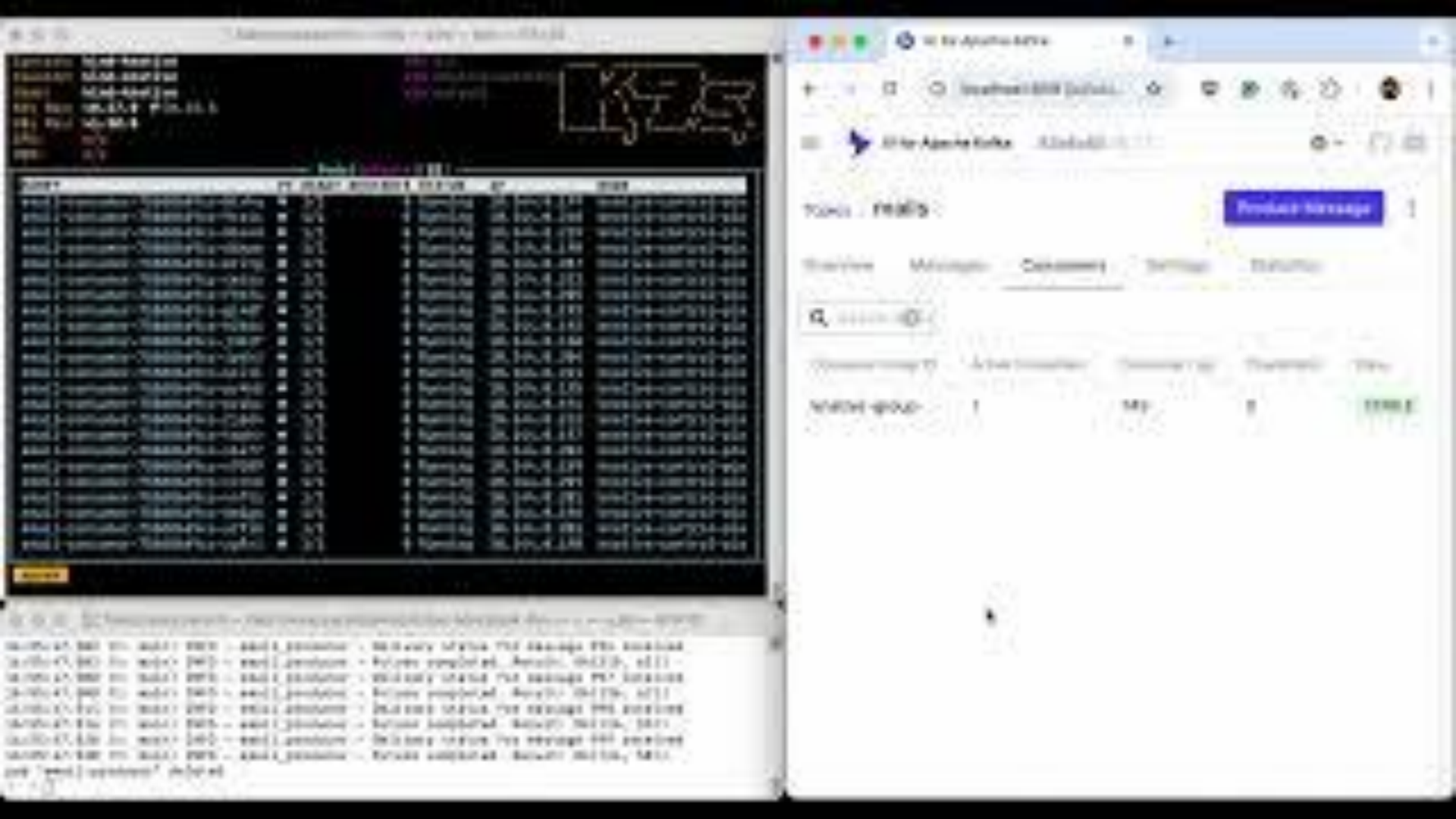


Batteries Included

https://wasi.dev/interfaces

Demo Architecture





Conclusion

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Links

- https://keda.sh/
- https://kubernetes.io/docs/tasks/run-application/horizontal-pod-autoscale/
- https://webassembly.org/
- https://wasi.dev/
- https://containerd.io/
- https://github.com/containerd/runwasi
- https://wasmedge.org/
- https://wasmtime.dev/
- https://wasmer.io/
- FOSDEM 2024 - The JVM vs. WebAssembly: An In-Depth Comparative Analysis