



Sovereign Cloud Stack

Open Source Cloud & Container Stack for Federated Sovereign Infrastructure (Gaia-X)

An Open Operations concept - The fifth Open Paradigm?

Kurt Garloff und
Felix Kronlage-Dammers

project@scs.sovereignit.de

OpenInfra Summit Berlin 2022



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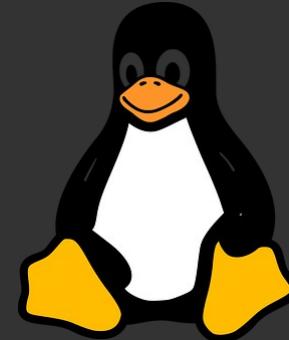


on the basis of a decision
by the German Bundestag

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They will be published on
<https://scs.community/>

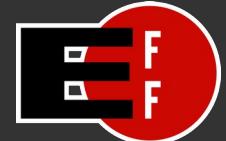
And there is a recording ...





T-Systems

SUSE



2010
Linux-Kongress

OSB Open Source
Business
ALLIANCE

Bundesverband für digitale Souveränität e.V.

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SPRIN-D





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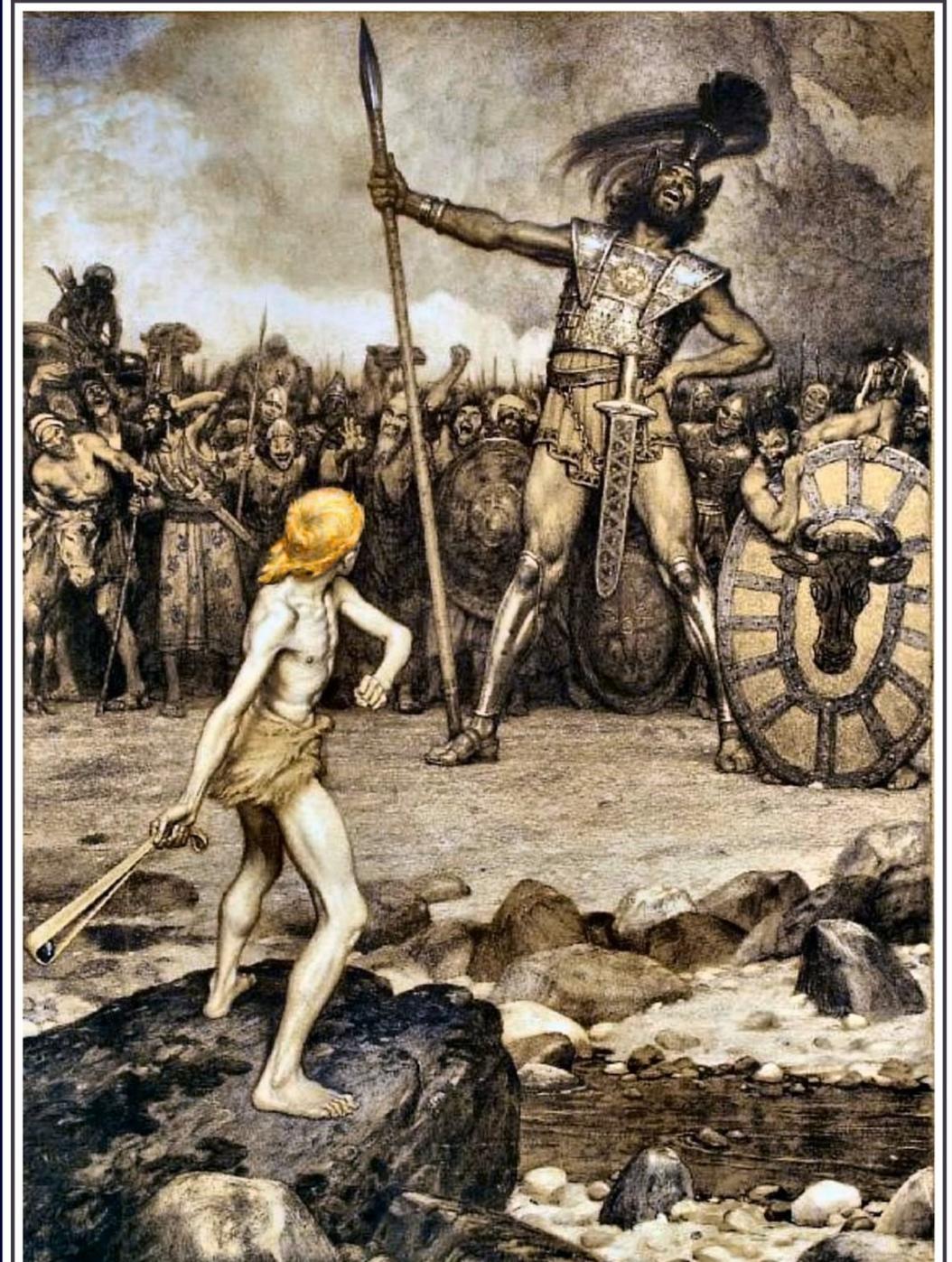
Sea-Watch.org



gridscale



gaia-x



Osmar Schindler, 1888: David and Goliath (http://www.bcpublicrecord.com/?attachment_id=10222)

Open Source ~1995



2020: Open Source everywhere (Internet, TV, Smartphones, Cars ...)



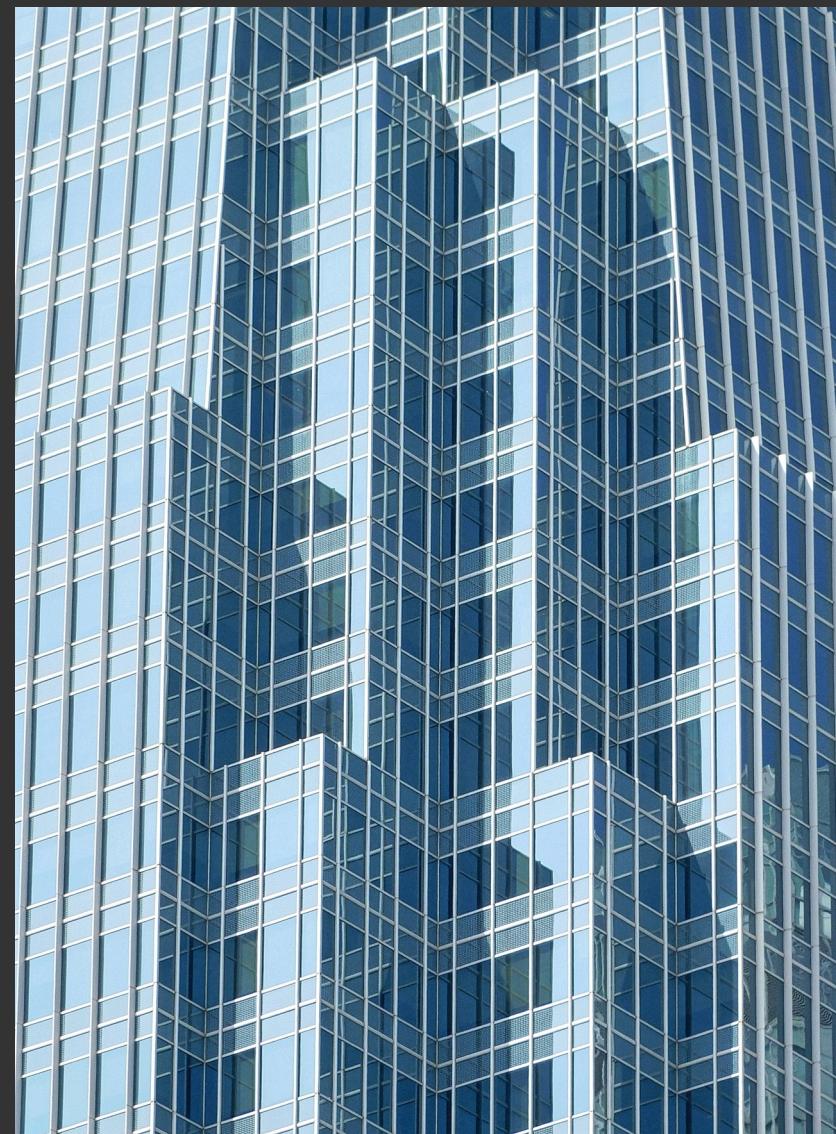
?



Openness?



Transparency?



“Open”
has
become a
marketing
term



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 OpenInfra FOUNDATION

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The Four Opens

Our Philosophy on Open Source

The Four Opens are a set of principles guidelines that were created by the OpenStack community as a way to guarantee that the users get all the benefits associated with open source software, including the ability to engage with the community and influence future evolution of the software.

Under these guidelines, the OpenStack community grew from tens of contributors to thousands, creating one of the top three most active open source projects in the world behind the Linux Kernel and Chromium. The Four Opens were instrumental not only in this success but also in building a thriving, global community.

We at OpenInfra Foundation consider The Four Opens our guiding principles in everything we do.

- Open Source
- Open Design
- Open Development
- Open Community

How we practiced the Four Opens has evolved over time and incorporates many practices: public code reviews, design summits, technical committee, and lazy consensus. Earlier this year, the Open Infrastructure Foundation started the Four Opens Book as a way to share these learnings and how the Four Opens were initially intended for upstream, and how they proved applicable to downstream activities such as user feedback gathering, marketing, or event management. As the Open Infrastructure Foundation grows to more generally support Open Infrastructure, the Four Opens will grow alongside it.

We welcome you to [read the book](#) or [contribute](#) and share your open source learnings as this book continues to evolve and reflect our values.

Learn more about the Four Opens, the value they bring, and the responsibility of the community that upholds them to be mentors for the next wave of new members with Aeva Black, Azure Office of the CTO at Microsoft, on the OpenInfra Live: Keynotes.

 Building a Successful Open Source Community with the Four Opens | Aeva Black

Share

Really
open!

Open Source

Open Design

Open Development

Open Community



Internet platforms

We should have won ...



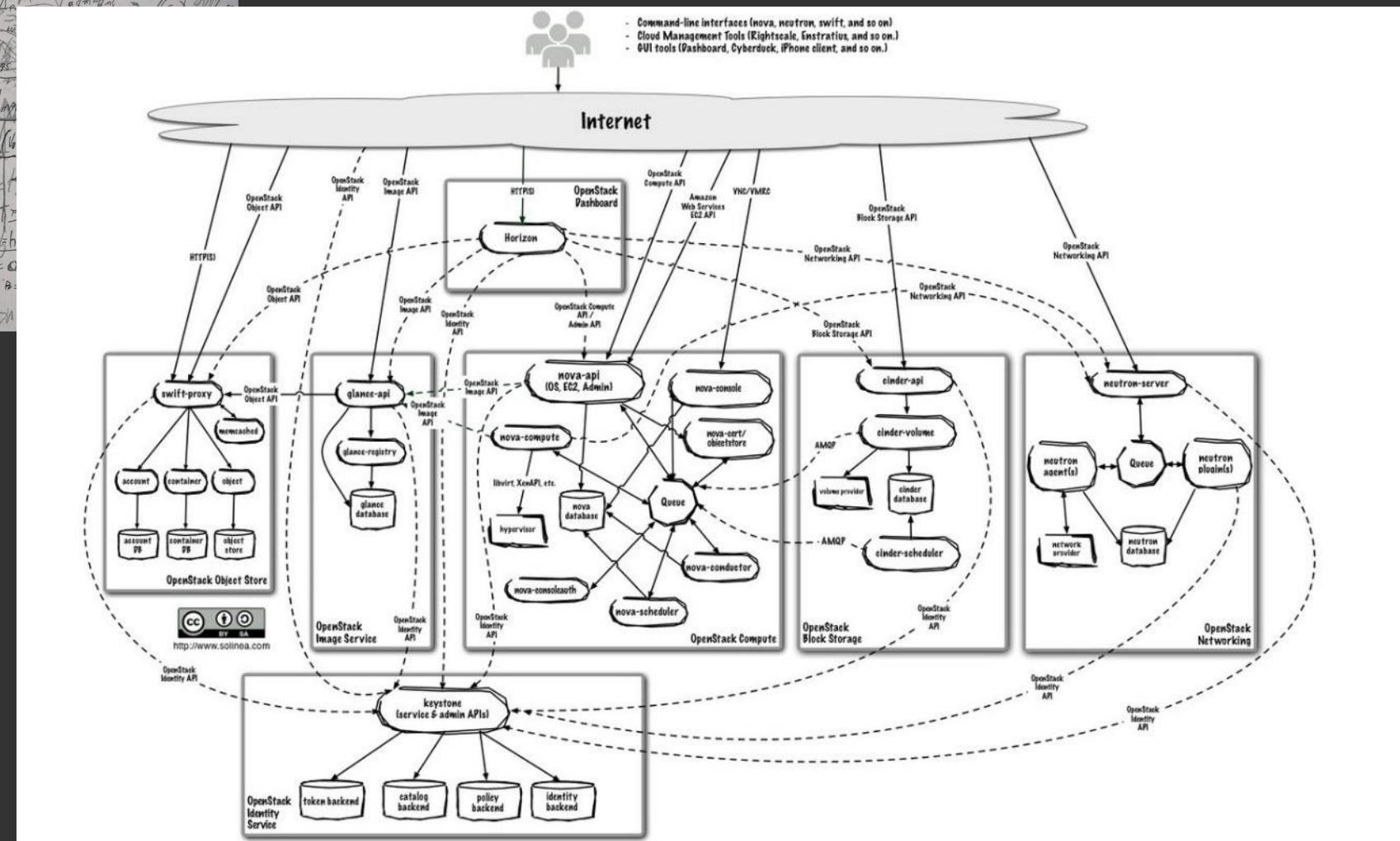
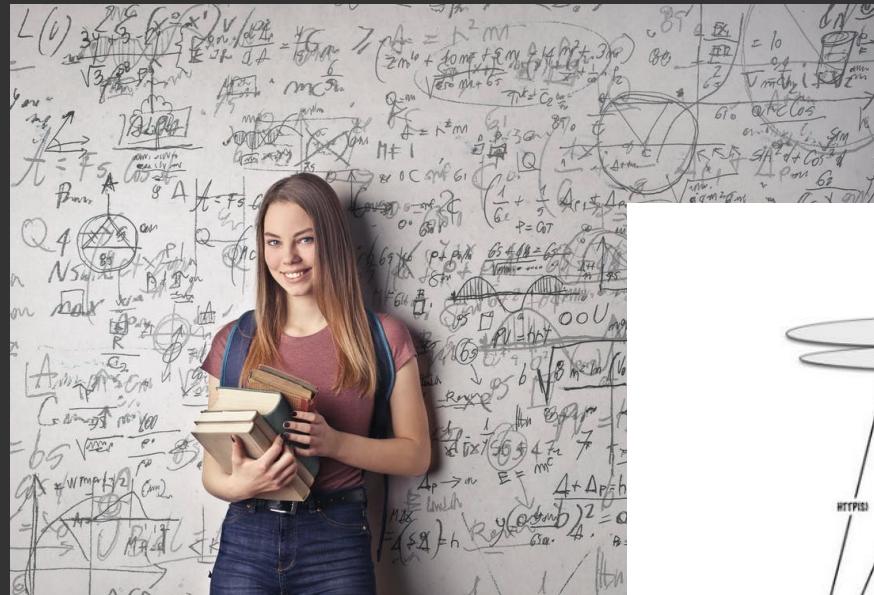
Reality Check



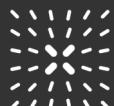
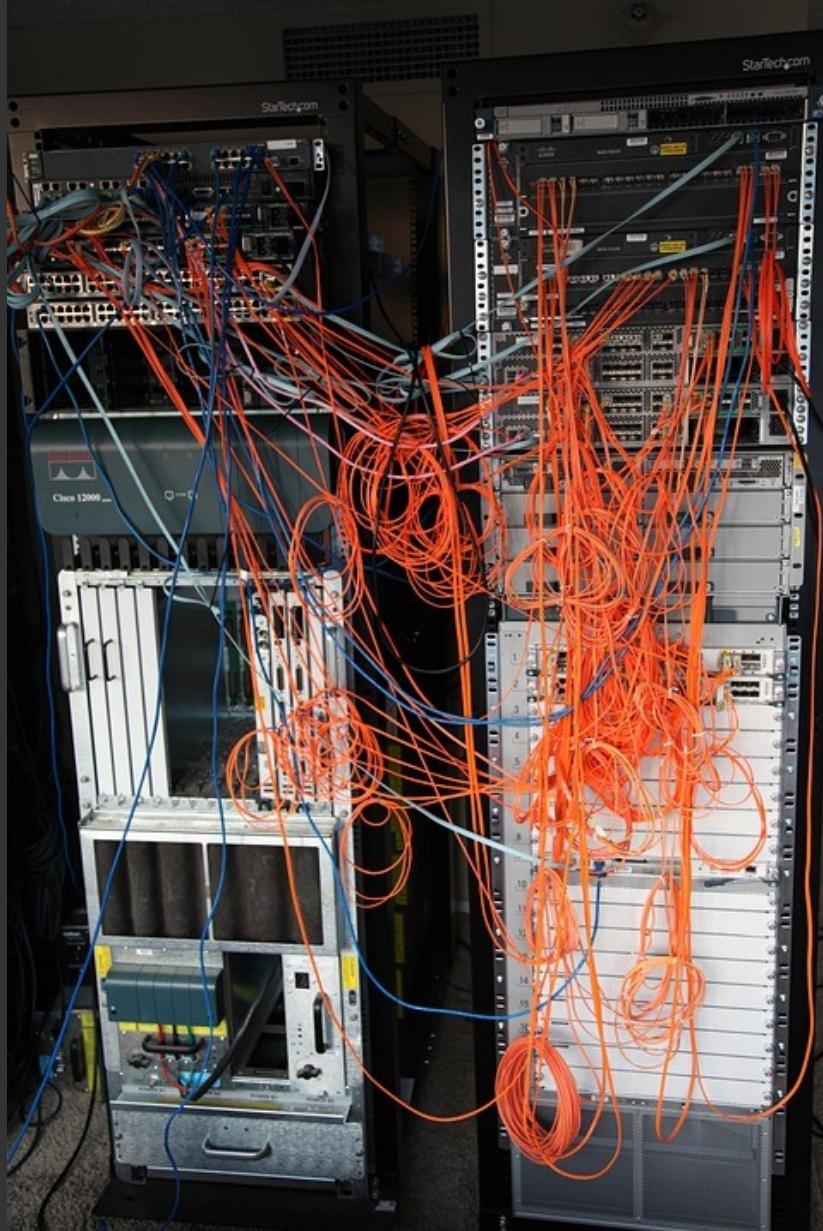
Why?



Developing distributed dynamic infra is hard



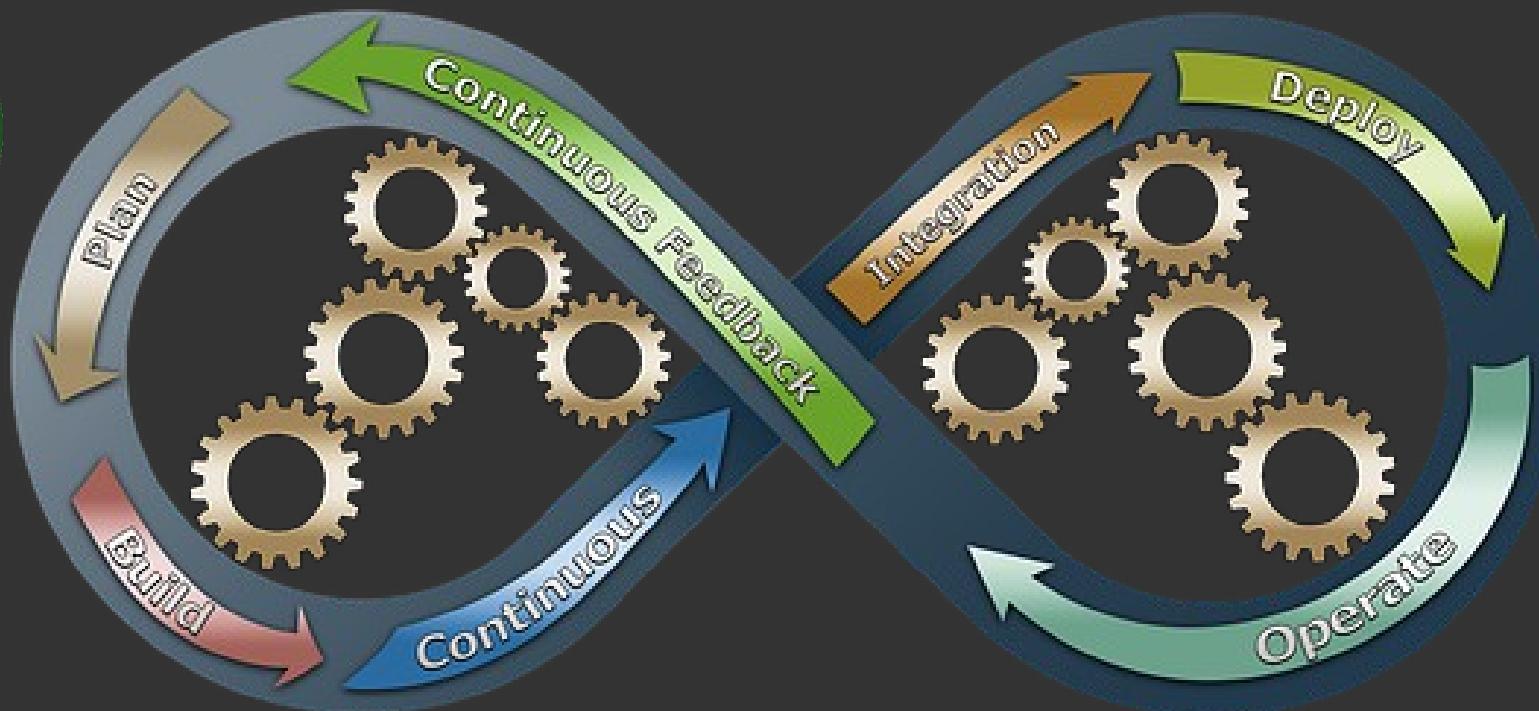
Operating distributed dynamic infra is harder



DevOps allows to dev & op complex infra

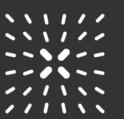


4 x open



By sharing and documenting best practices for operating such cloud stacks, the difficulty to provide high quality cloud services internally or publicly is vastly reduced.

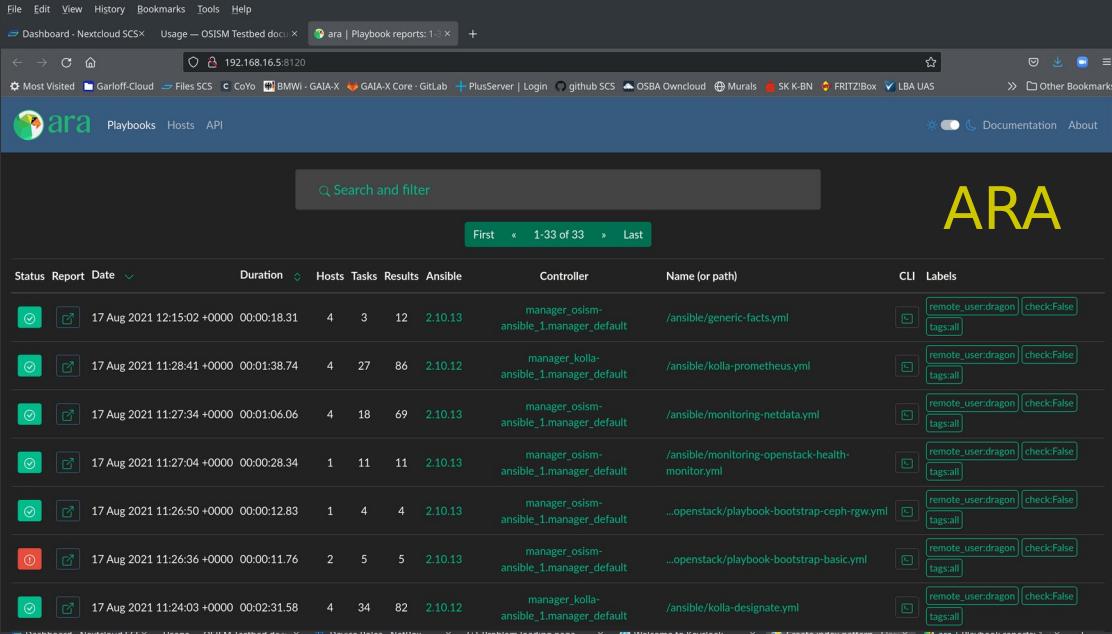
- <https://scs.community>

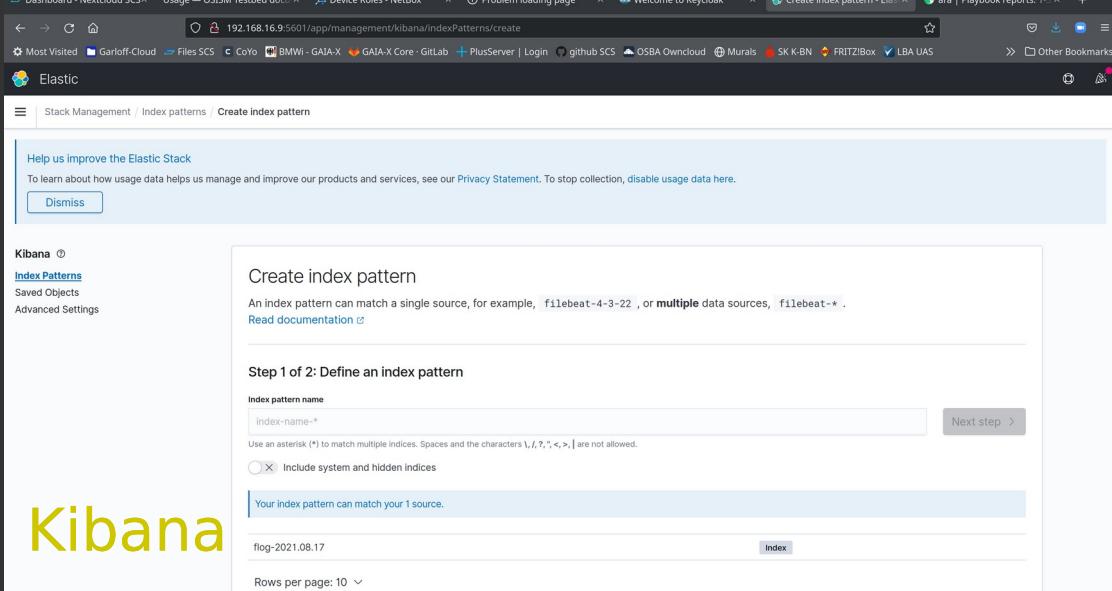


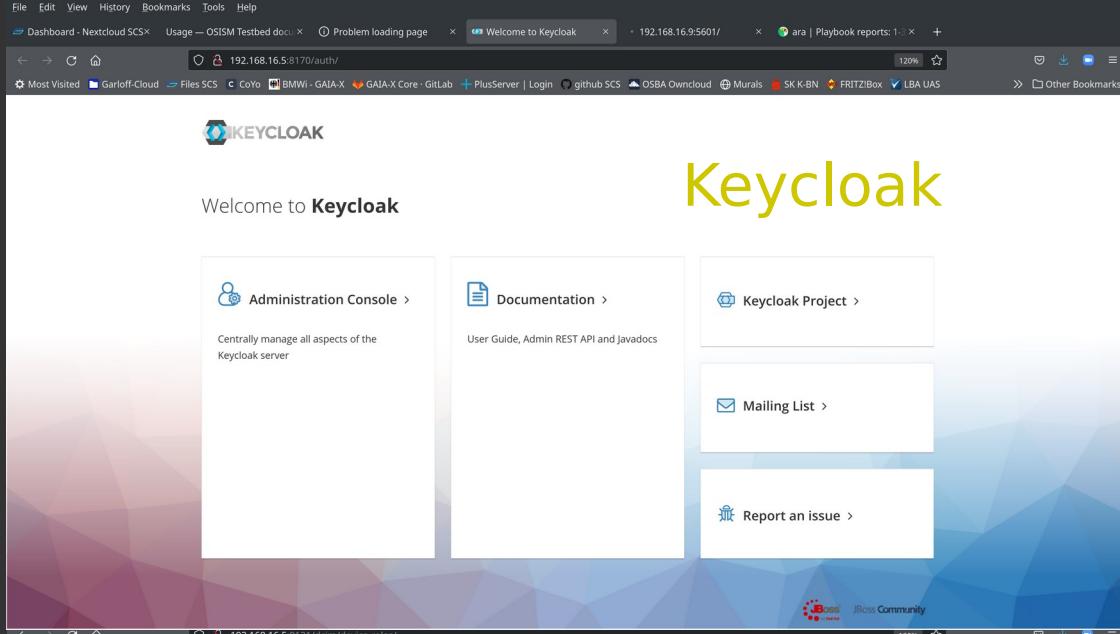
Is it time to introduce the *fifth* Open?

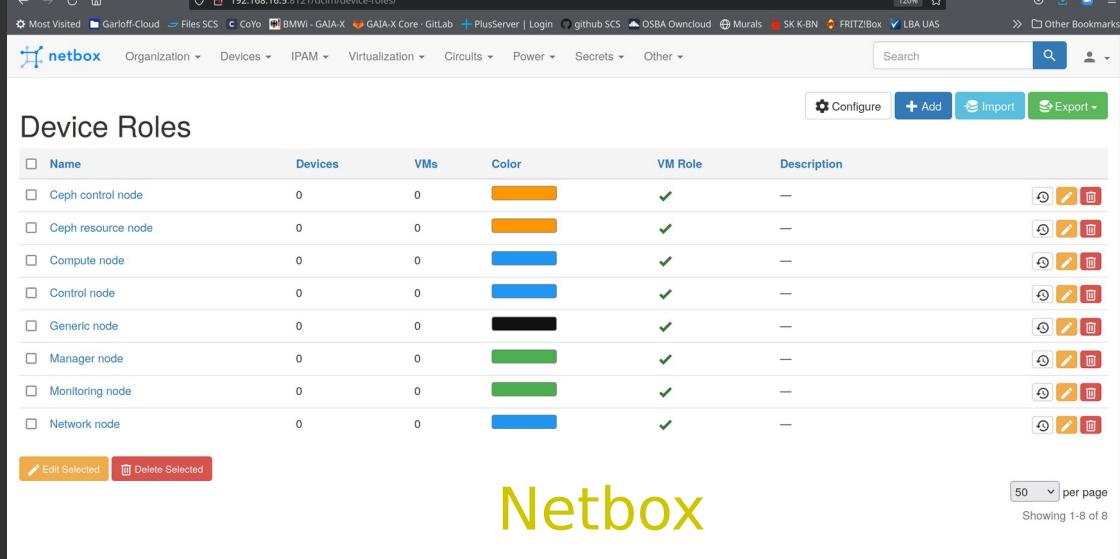


Addressing the Operations challenge: Tooling (SCS reference implementation)


ARA
 ARA is a tool for monitoring and managing Ansible playbooks. It provides a central interface for viewing playbook reports, hosts, and controllers. The screenshot shows a list of playbook runs with details like date, duration, hosts, tasks, results, and controller.

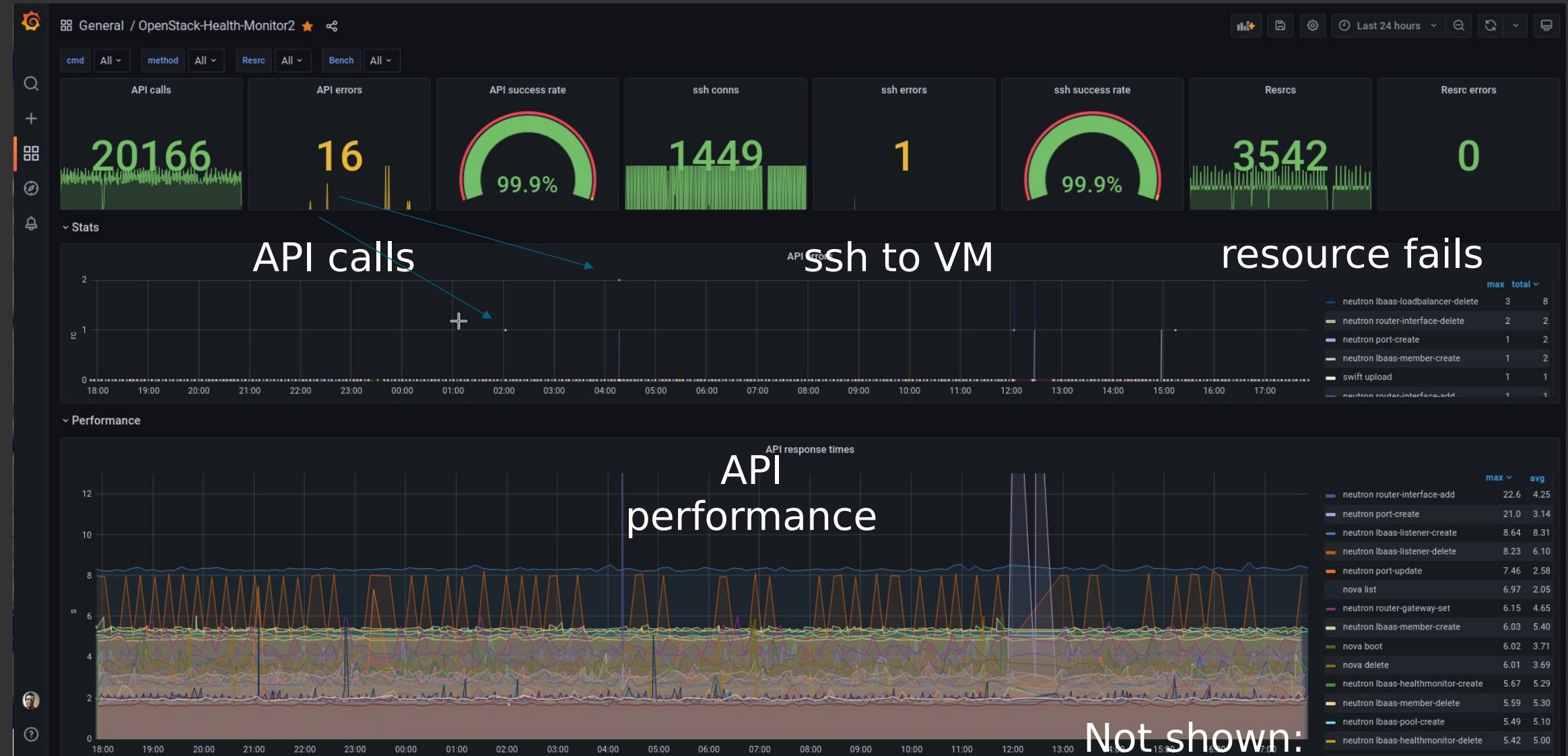

Kibana
 Kibana is a visualization layer for Elasticsearch. The screenshot shows the 'Create index pattern' step, where users can define patterns to match multiple indices. It includes fields for 'Index pattern name' and 'Include system and hidden indices'.


Keycloak
 Keycloak is an open-source identity and access management (IAM) solution. The screenshot shows the 'Welcome to Keycloak' page, which links to the administration console, documentation, and other community resources.


Netbox
 Netbox is a network configuration management tool. The screenshot shows the 'Device Roles' page, listing various node types (Ceph control node, Compute node, Control node, etc.) with their corresponding VM roles and colors.

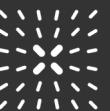
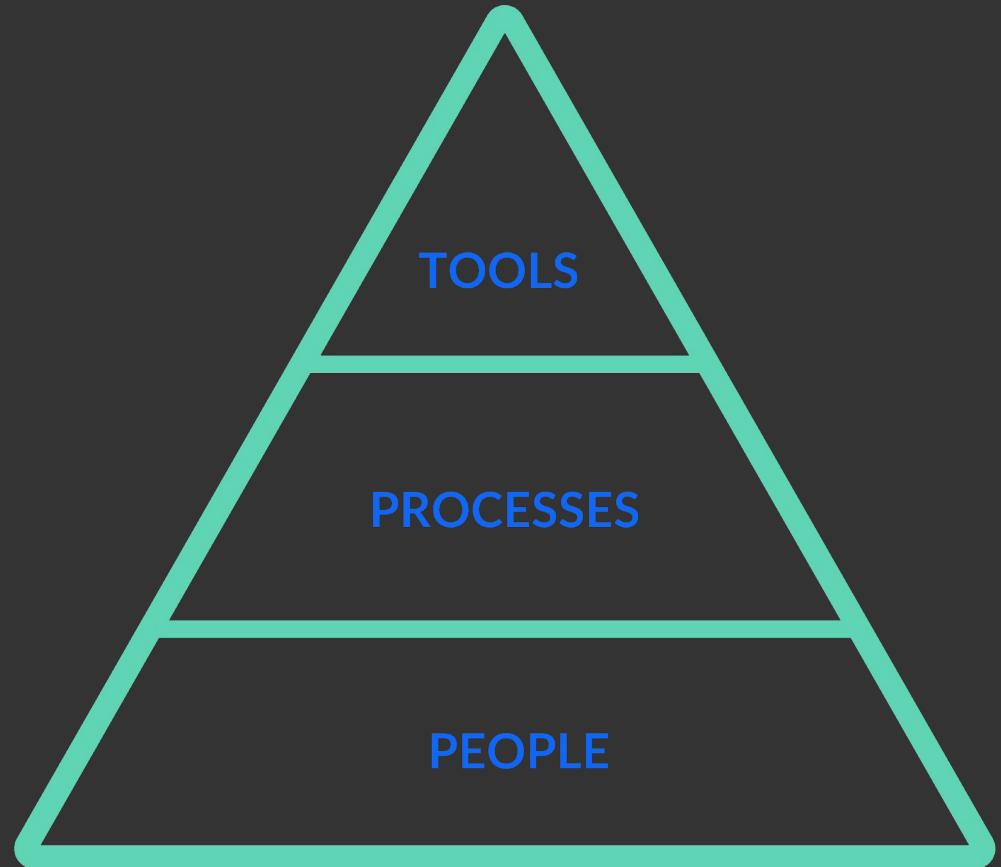


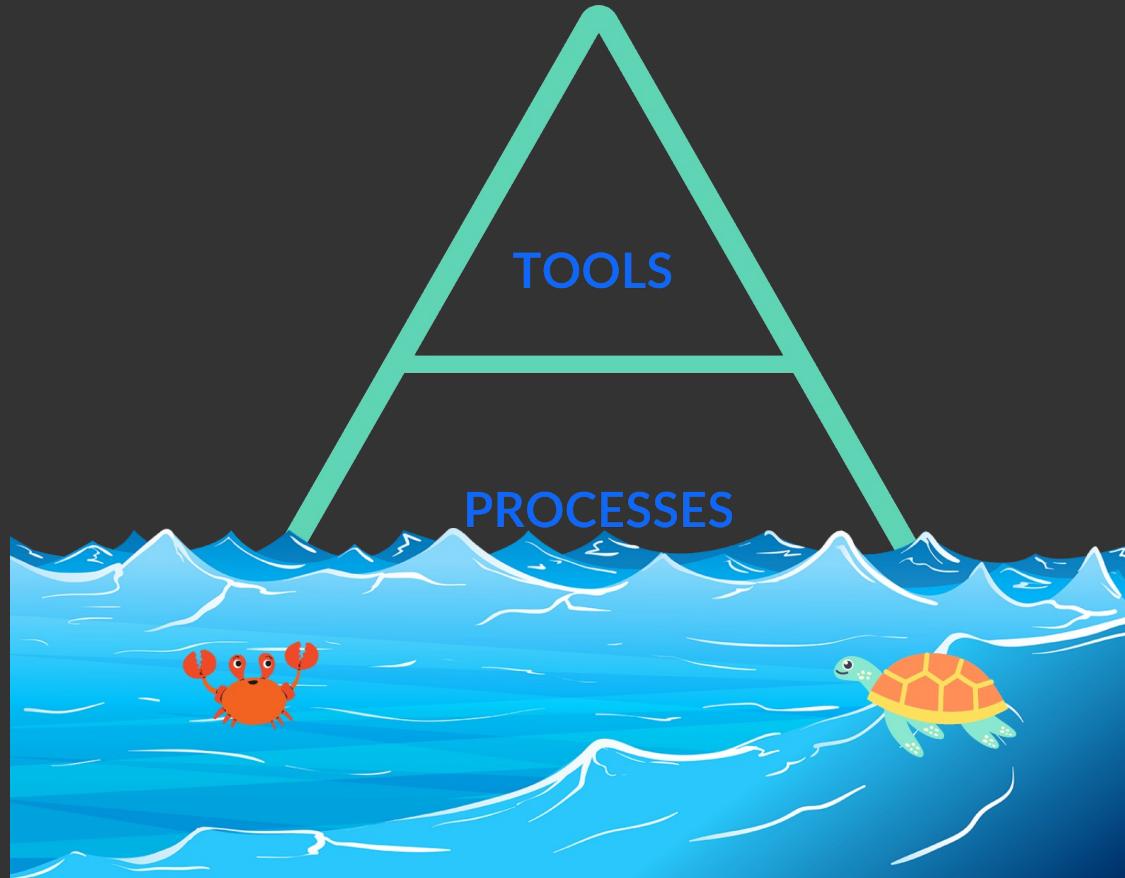
Operations: Measure what you want to manage ...



Are open source tools enough?

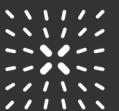








Psychological Safety!



Good examples for public RCAs

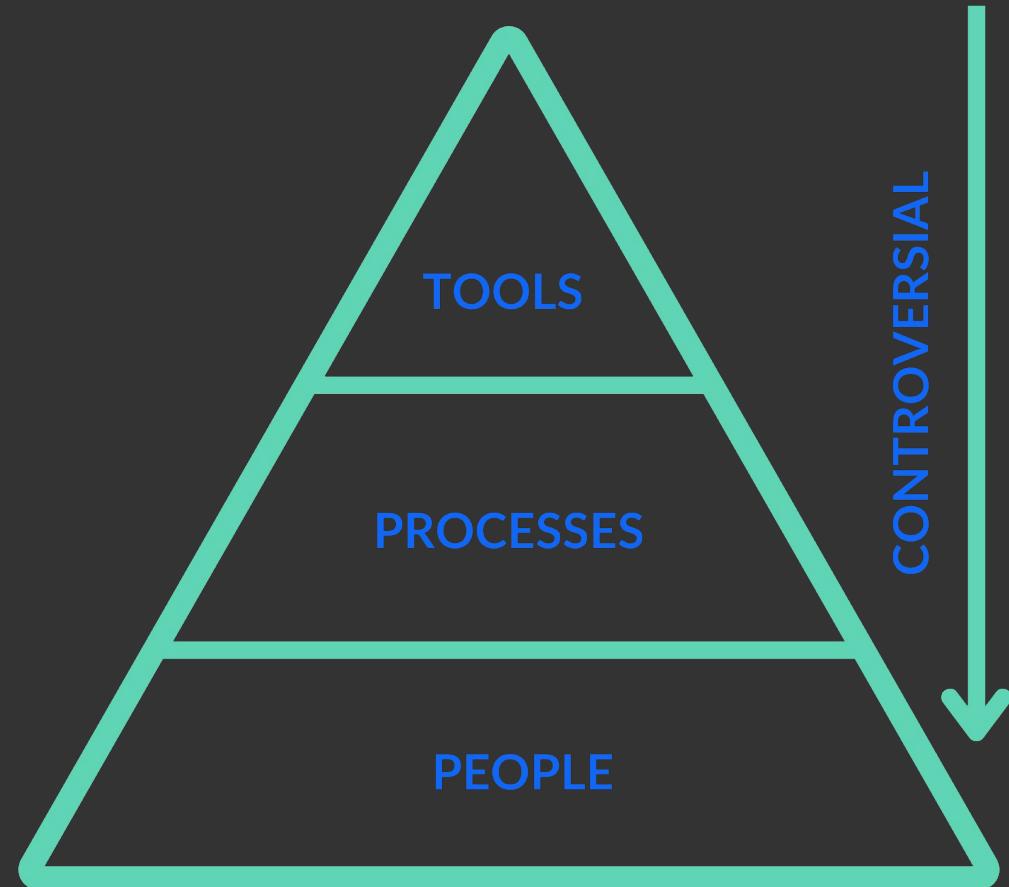
Azure, 2012-02-29

<https://azure.microsoft.com/de-de/blog/summary-of-windows-azure-service-disruption-on-feb-29th-2012/>

OTC, 2017-11-08

<https://imagefactory.otc.t-systems.com/home/root-cause-analysis-and-improvements-on-otc-network-outage-2017-11-08>





Good examples for open processes

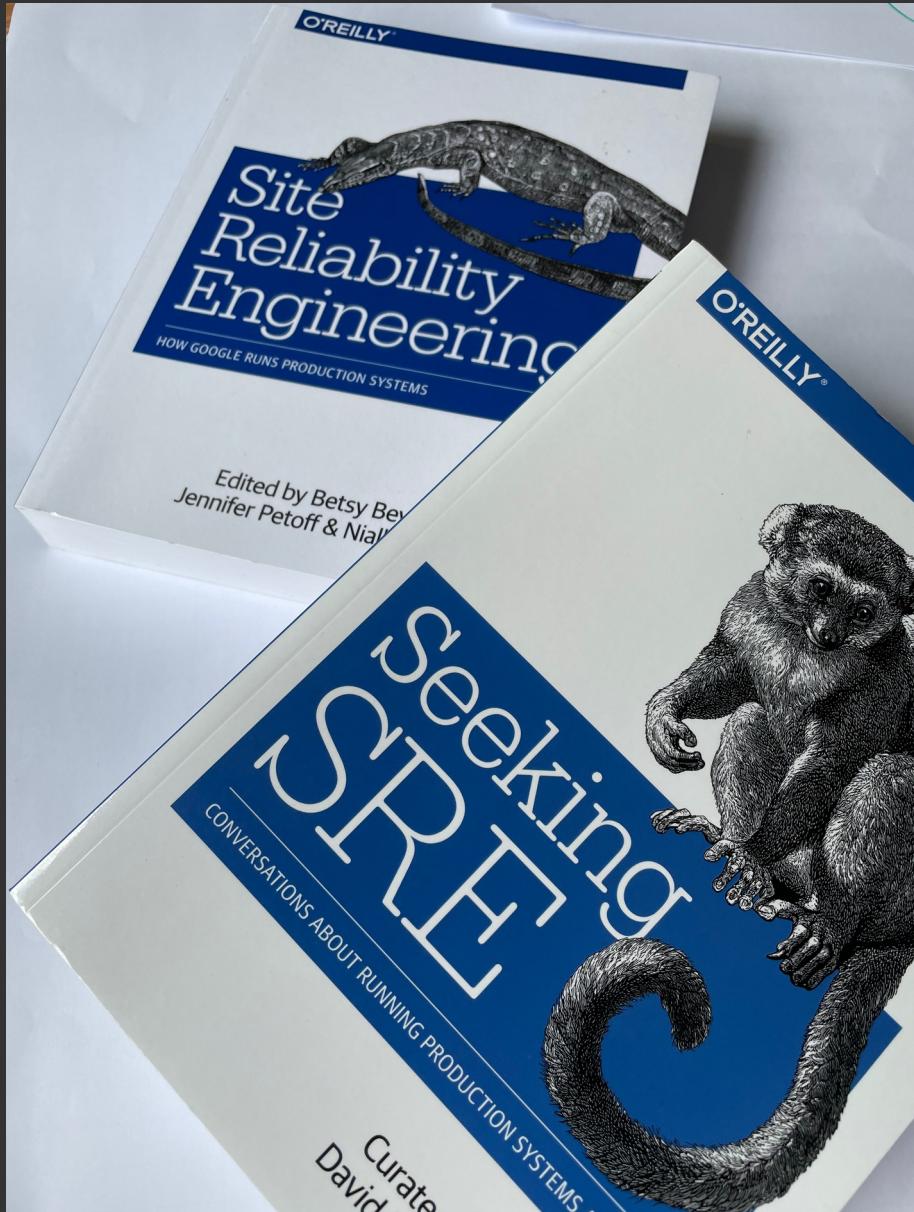
gitlab

<https://about.gitlab.com/handbook/>

Are you the next awesome example?



A step in the right direction



<https://sre.google/books/>



Wanted: Sharing culture in Ops

Share knowledge

e.g. monitoring setup and config

Share status

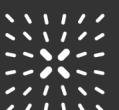
e.g. health & performance monitoring

Share challenges

e.g. fraud detection

Public Root Cause Analysis

e.g. outages



Sovereign Cloud Stack project is working on it

Started end of 2019

Funded by BMWK (German Fed. Min. for Economic Affairs & Climate Action) since summer 2021

Run by Open Source Business Alliance e.V. with half a dozen employees (growing to a dozen)



Open Community contributions

Paid contractor work (awarded via public tenders)

Closely working with Gaia-X

SCS project is neutral orchestrator within the SCS ecosystem, partners do business as CSP, services providers, etc.

Project page: <https://scs.community/>



Join in with developing Open Operations!

SCS DevOps community

<https://scs.community/>

Operate 1st (Open Infra Labs)

<https://openinfralabs.org/operate-first-manifesto/>

Presentation: Intent-based holistic DC management

Wed, June 8, 4:40pm - 5:10pm | Berlin Congress Center - B - B09

Forum session: Open Operations / 5th Open Paradigm

Thu, June 9, 9:40am - 10:10am | Berlin Congress Center - A - A05

Presentation: Observability in OpenStack

Thu, June 9, 11:50am - 12:20pm | Berlin Congress Center - B - B08

