



KubeCon



CloudNativeCon

North America 2022

BUILDING FOR THE ROAD AHEAD

**DETROIT 2022**

# How Intuit Manages Cloud Resources via GitOps

*Jerome Kuptz & Ameen Radwan*

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**October 24-28, 2022**



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Principal Software  
Engineer  
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# Who Are We - Intuit

DEV  
ENVIRONMENT

AI  
INFRASTRUCTURE

DATA  
INTEGRATION

FINTECH  
INFRASTRUCTURE

IDENTITY

INTUIT



turbotax



credit karma



quickbooks



mailchimp

100%

services on  
modern SaaS

58B

machine learning  
predictions per day

24k

financial institutions  
[+50 crypto]

\$465B

money moved

3.6B

requests during  
peak season  
(no customer failures)

# Who Are We - Intuit

DEV  
ENVIRONMENT

AI  
INFRASTRUCTURE

DATA  
INTEGRATION

FINTech  
INFRASTRUCTURE

IDENTITY

Enable engineers  
to develop code in  
a fast, secure, and  
compliant fashion

~1M active CPU cores    6x increase in development productivity since 2019    2k+ services

900+ teams    16k+ namespaces    6k+ developers    16M+ AIOps Inference/day

# Open Source & Open Collaboration

Recipient of the End User  
Award in 2019



End user of Cloud Native and  
mobile open source tech



Created, open-sourced, used,  
and maintained by Intuit



# Agenda

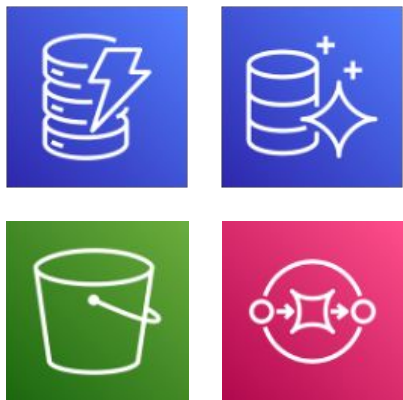
1. Journey
2. Landscape
3. Problem
4. Solution
5. Demo
6. Q&A

# Journey





# Landscape



**Supporting Resources**

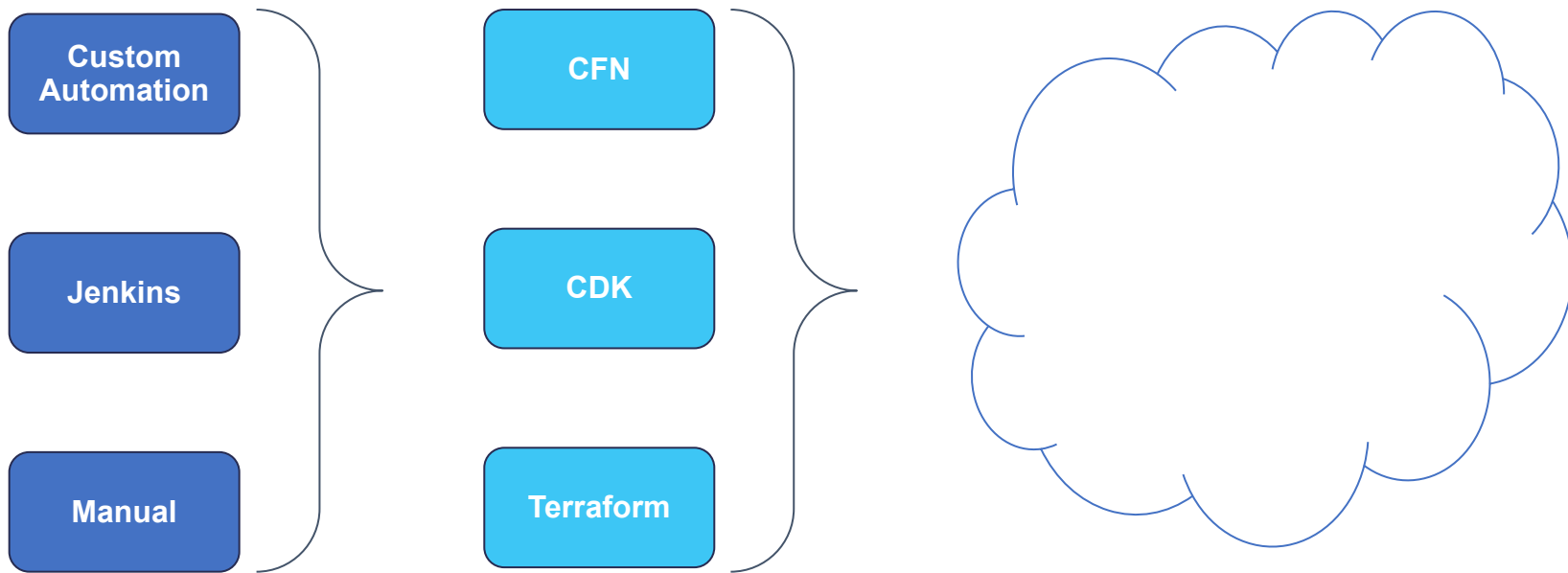


**Non Container**

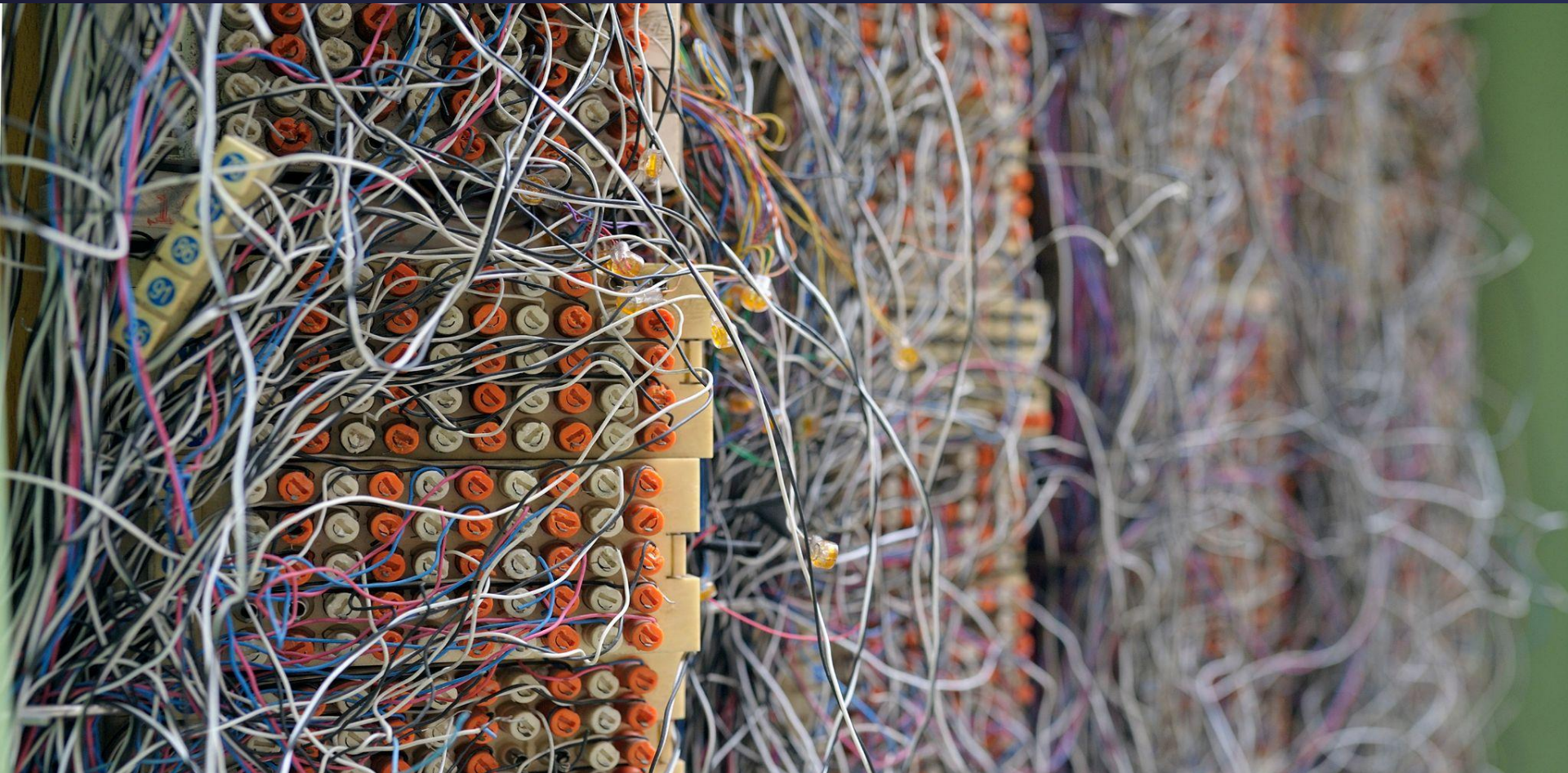


**Legacy**

# Problem



# Stepping into Chaos



# Principles

1. Align with existing standards
2. Develop as open source where possible
3. Cloud Agnostic
4. Infrastructure as code with GitOps
5. Isolation from cloud environment

# What is Missing?

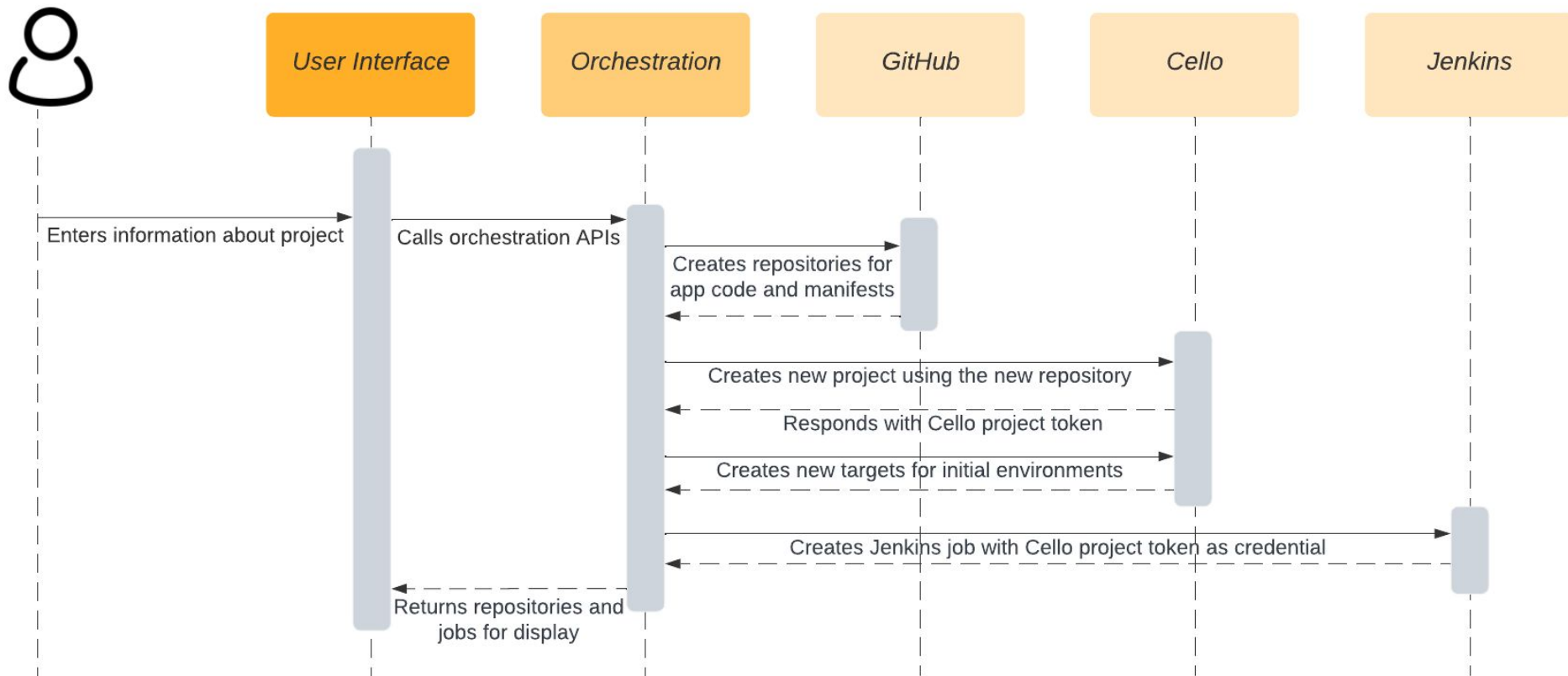
1. Align with existing standards
- 2. Develop as open source where possible**
- 3. Cloud Agnostic**
- 4. Infrastructure as code with GitOps**
5. Isolation from cloud environment

# Introducing...

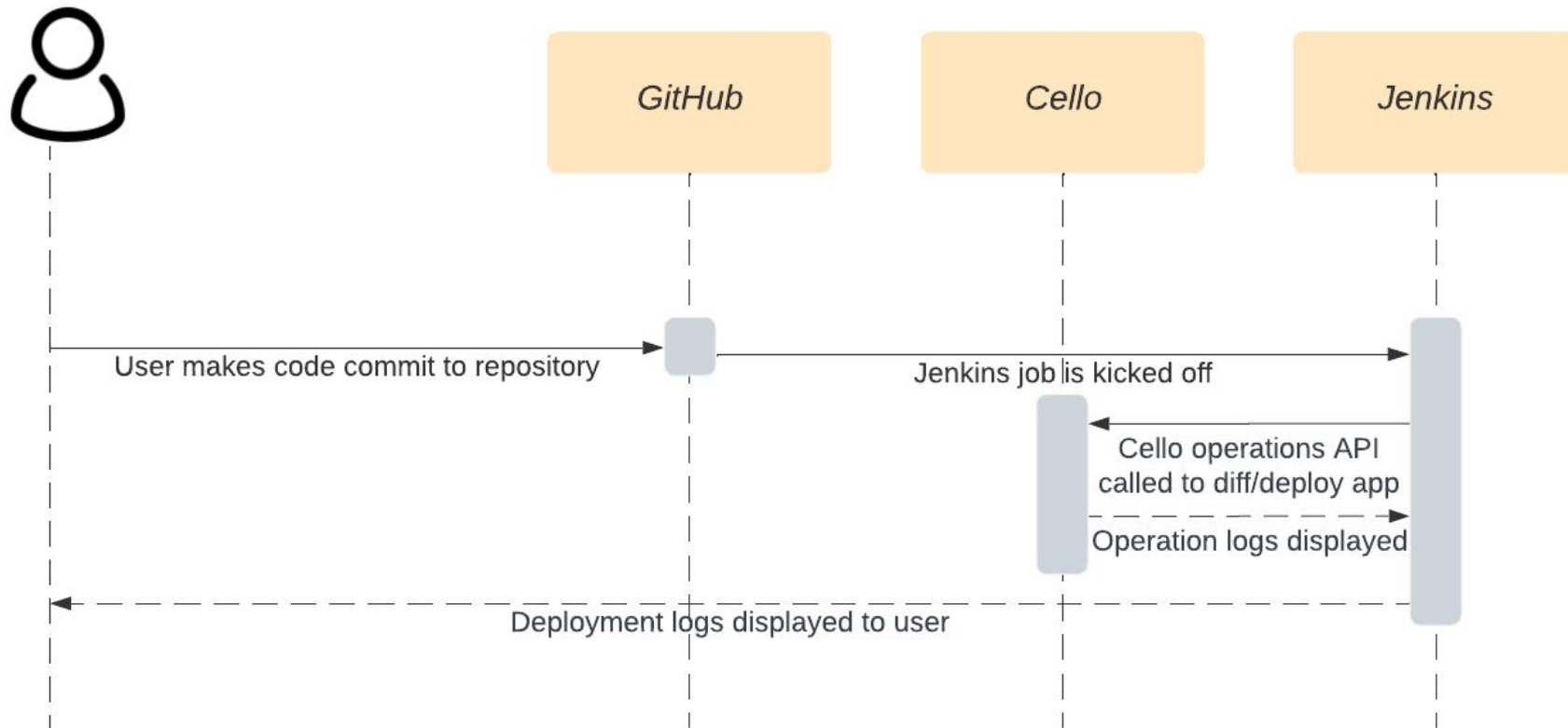




# New Project Onboarding

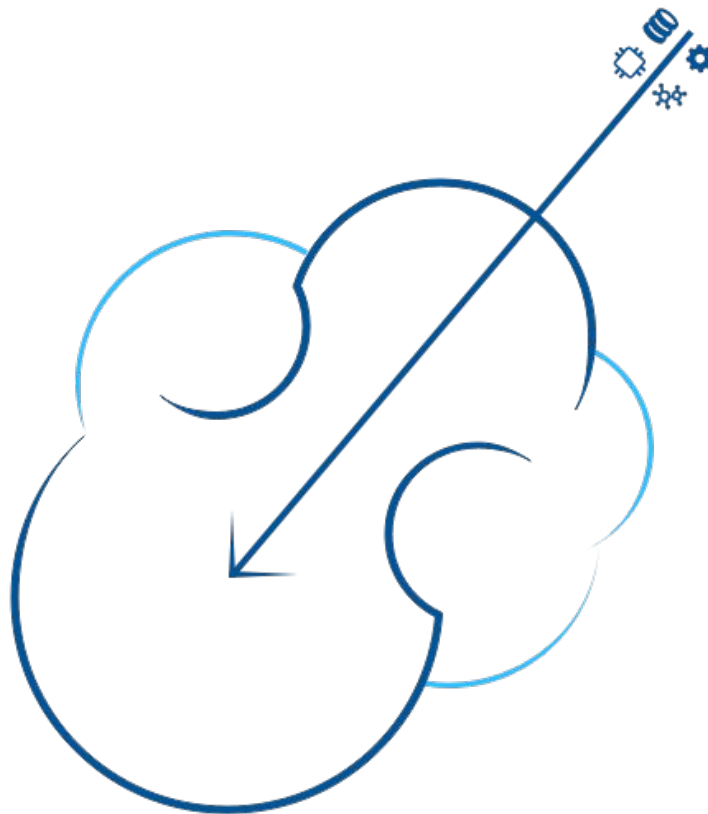


# Developer Day to Day



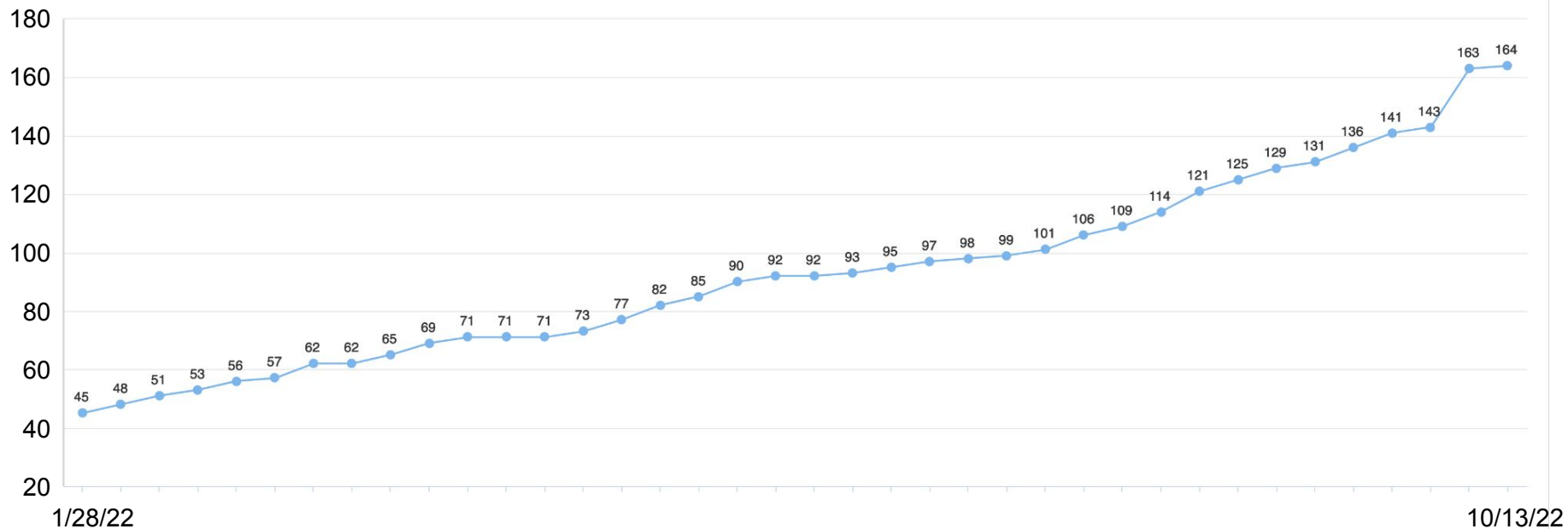


# Demo



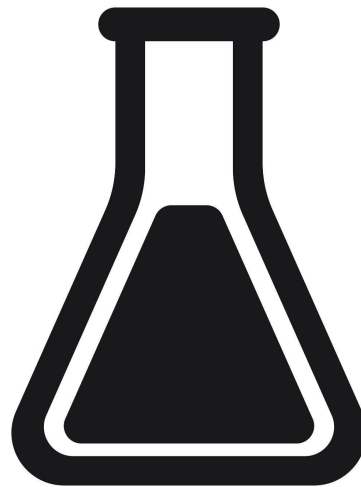
# Adoption

- Over 1000 projects using Cello for cloud deployments
- Over 150+ projects deploying cloud resources to production



# What is Next?

- Credential provider abstraction
- Multi-Cloud
- User Interface



Come try out  
[Cello!](#)



# Q&A





Please scan the QR Code above to  
leave feedback on this session

# Reference

- [github.com/cello-proj/cello](https://github.com/cello-proj/cello)
- [cello-proj.github.io/cello/](https://cello-proj.github.io/cello/)
- <https://cello-proj.github.io/cello/quickstart/>

