



ArgoCon

NORTH AMERICA

Global Tenant Management
using Argo

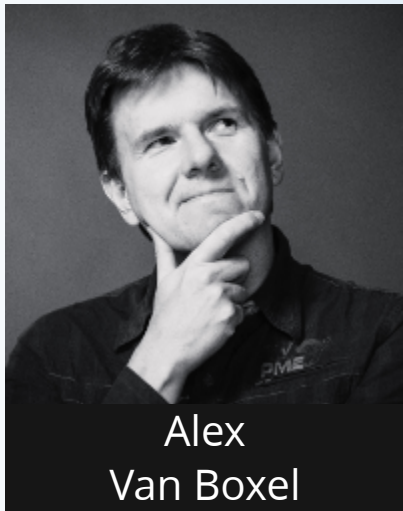


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Almost 30 years in the sector

Mostly as Software Engineer

Web - 3D - Middleware - Mobile - Big Data



Alex
Van Boxel

More recent as Architect

Data - SRE - Infrastructure

Community

Apache Beam contributor

OpenTelemetry Collector contributor

Collibra

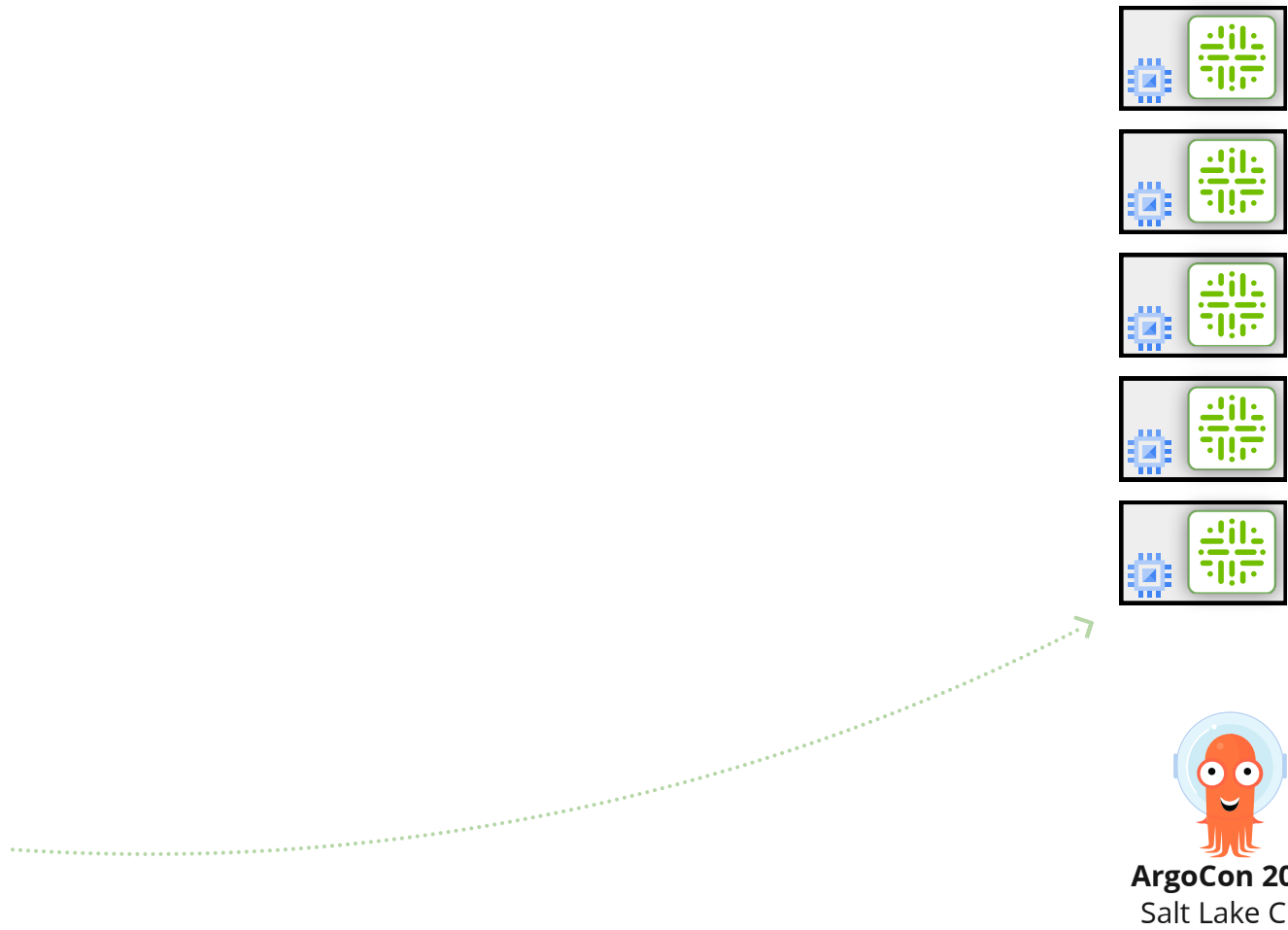
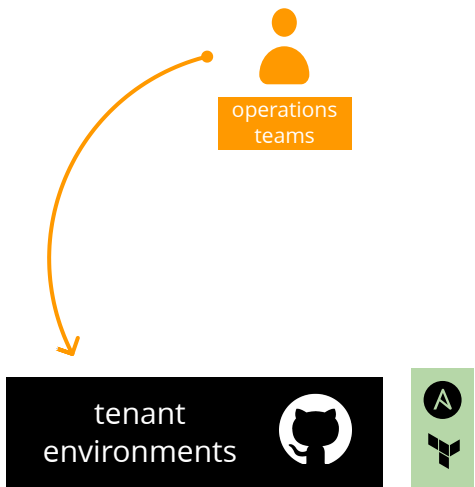
Principal Systems Architect

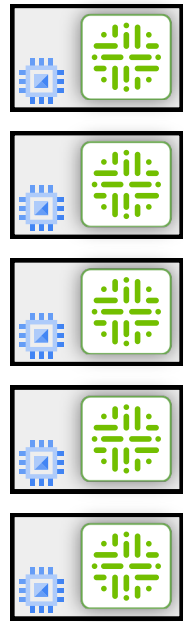
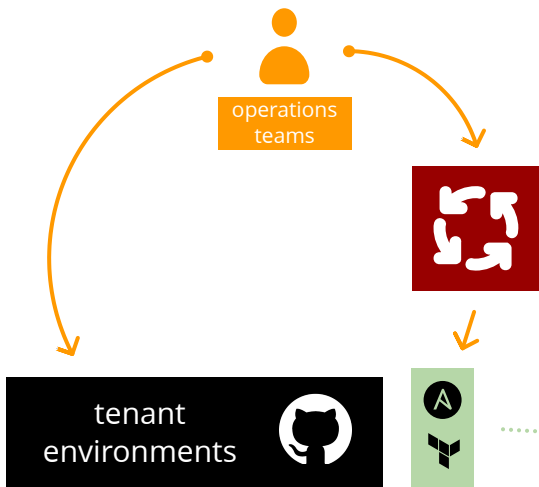


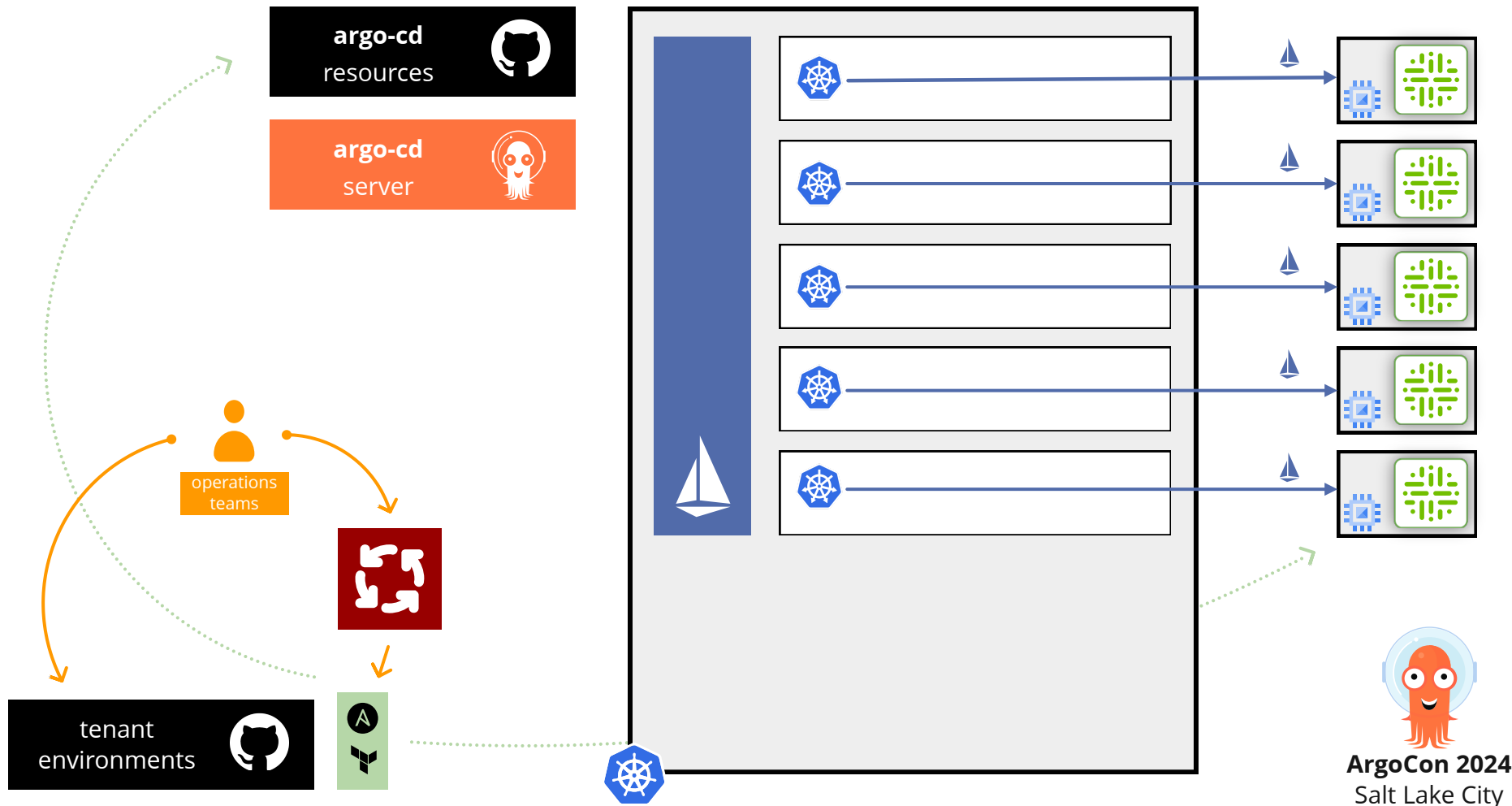
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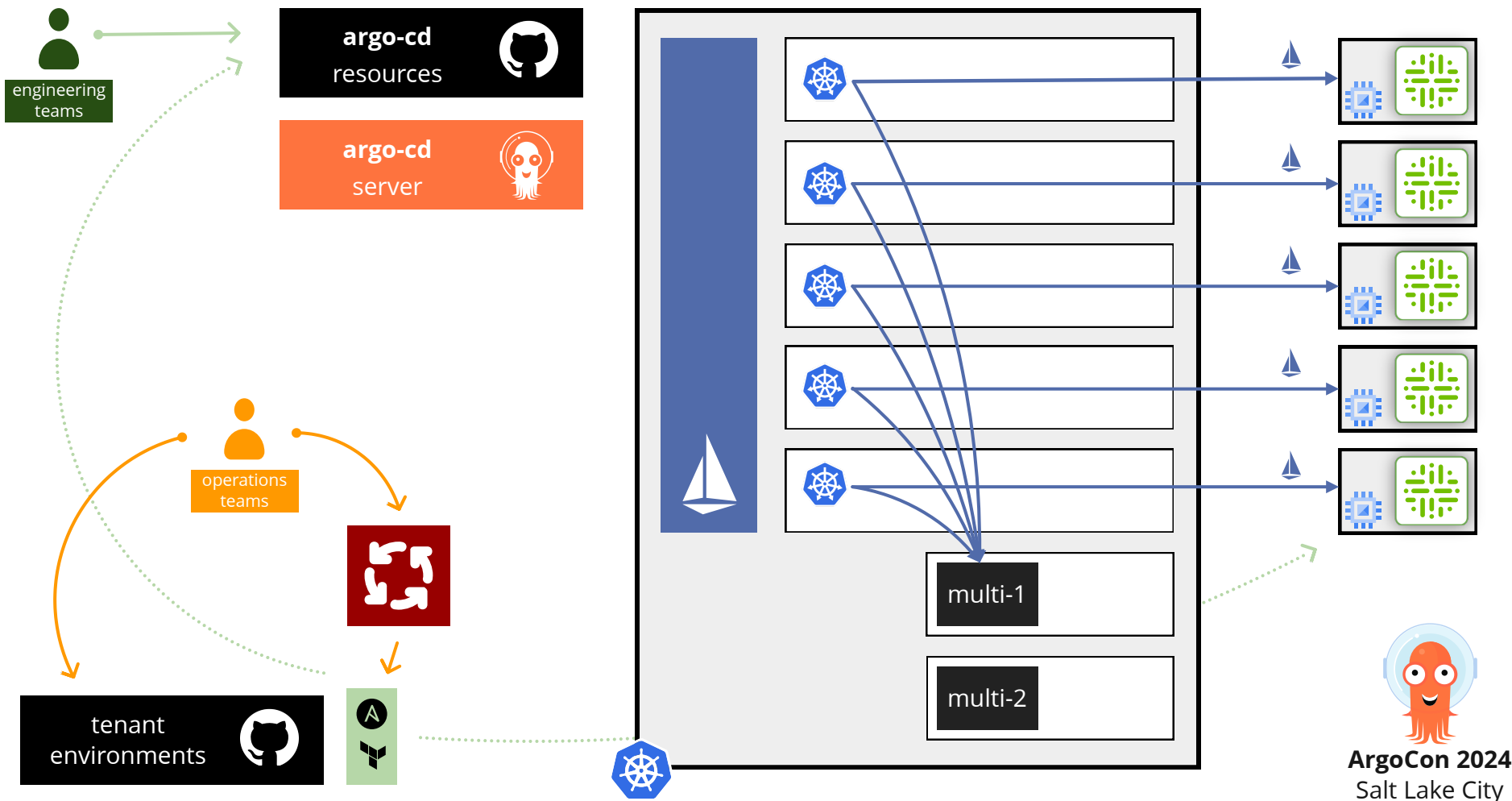


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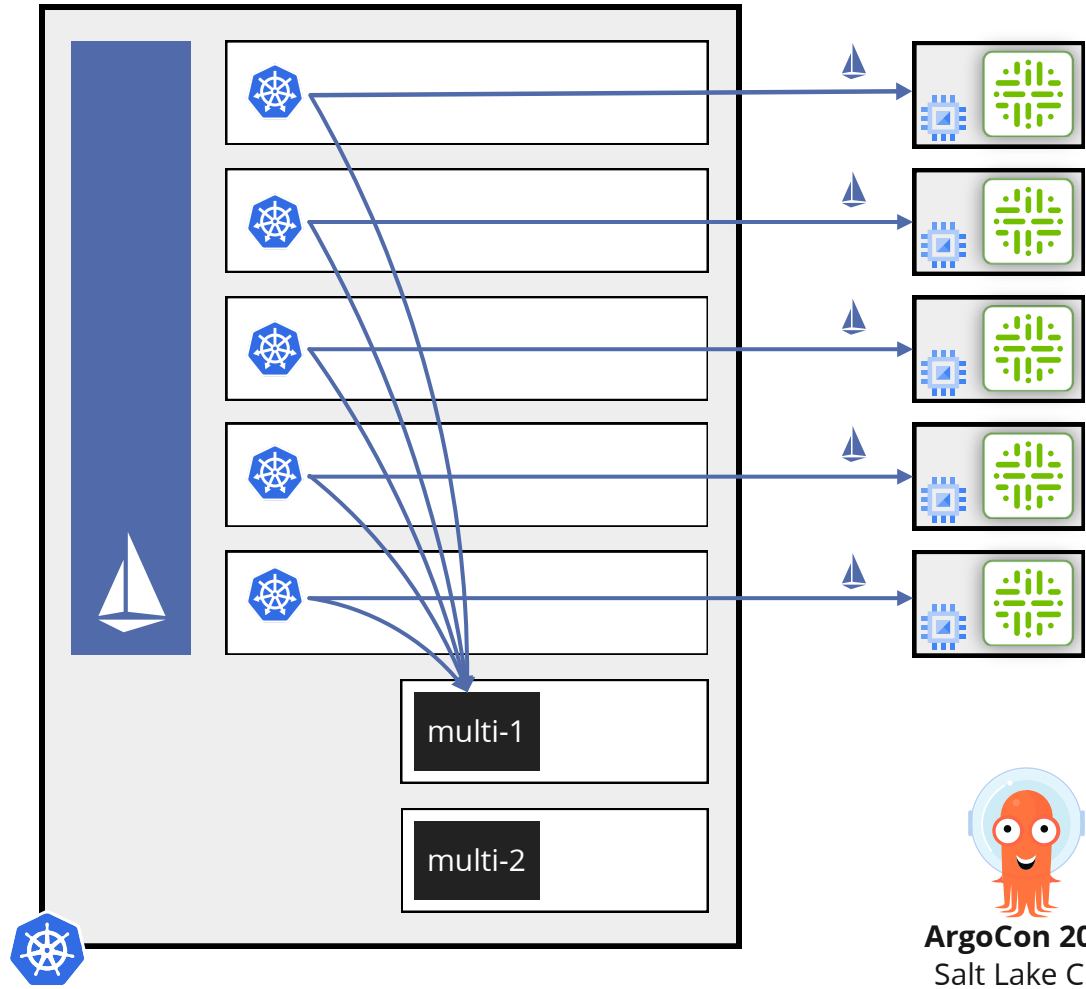
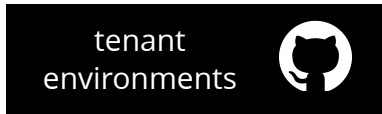
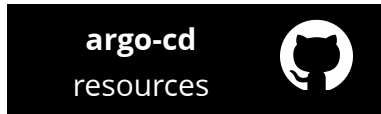




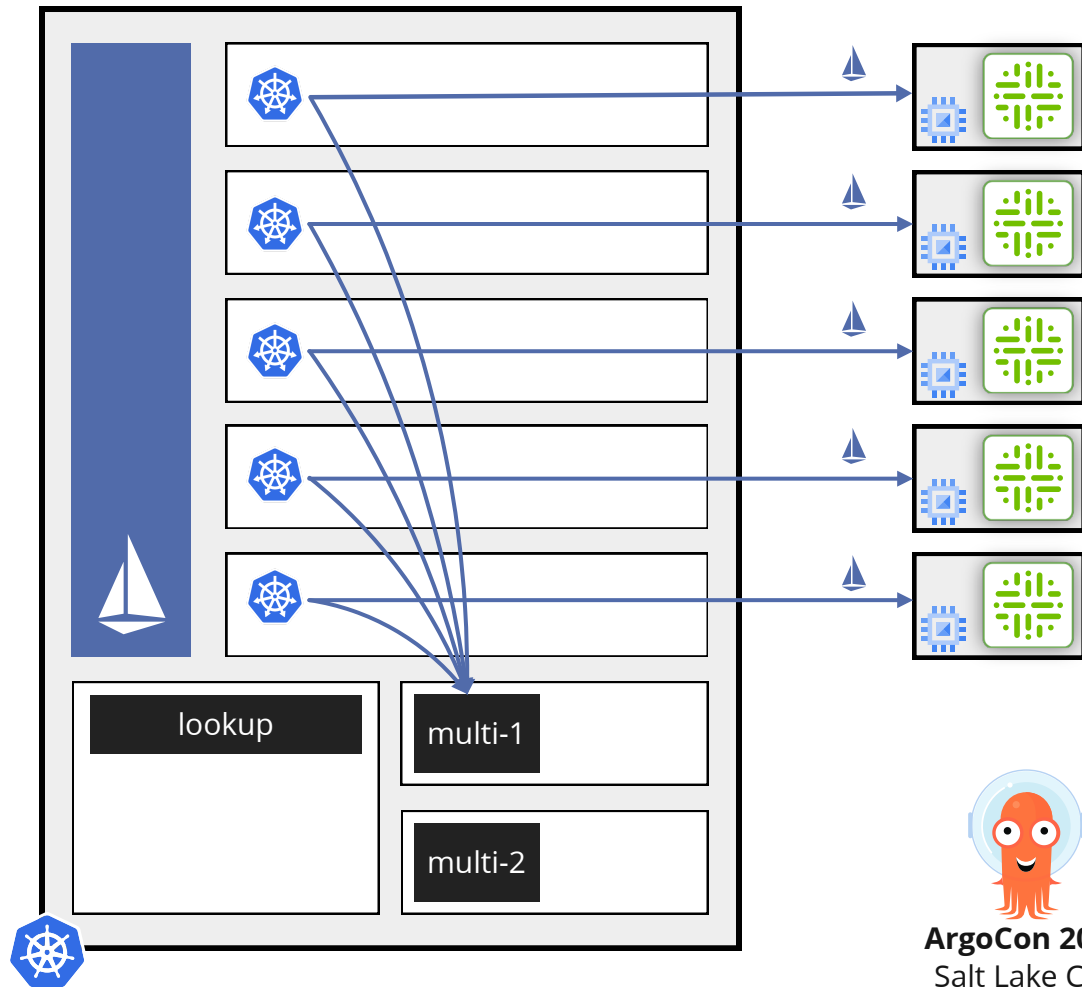
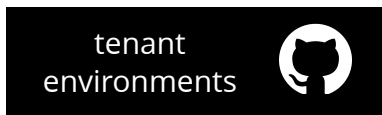
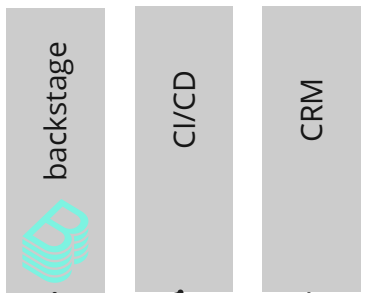
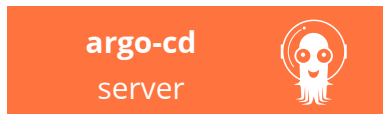
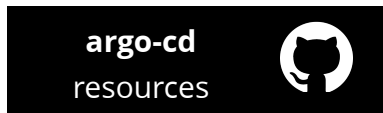
Design Goal

1. **Development - Production parity** (12 factor X).
Have the same procedures and API.
2. Introduce Tenant Environment **Lifecycle management** (12 factor XII) for creating, updating and decommissioning tenants.
3. Use **off the shelf** software to provide a UI for troubleshooting.



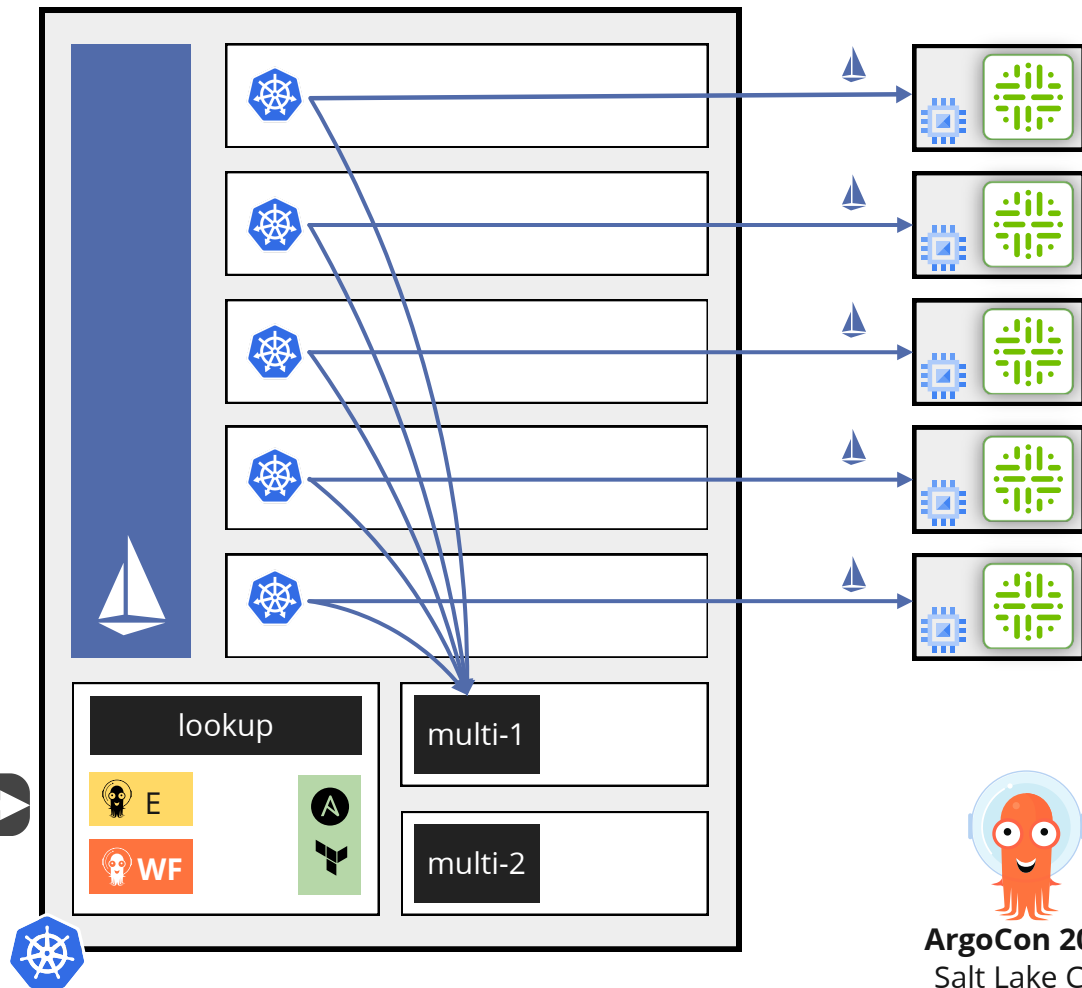
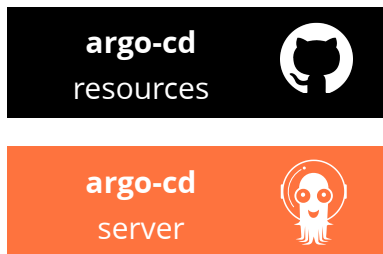
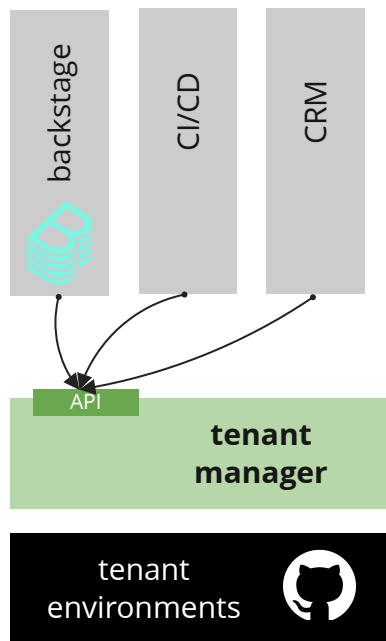


API
first



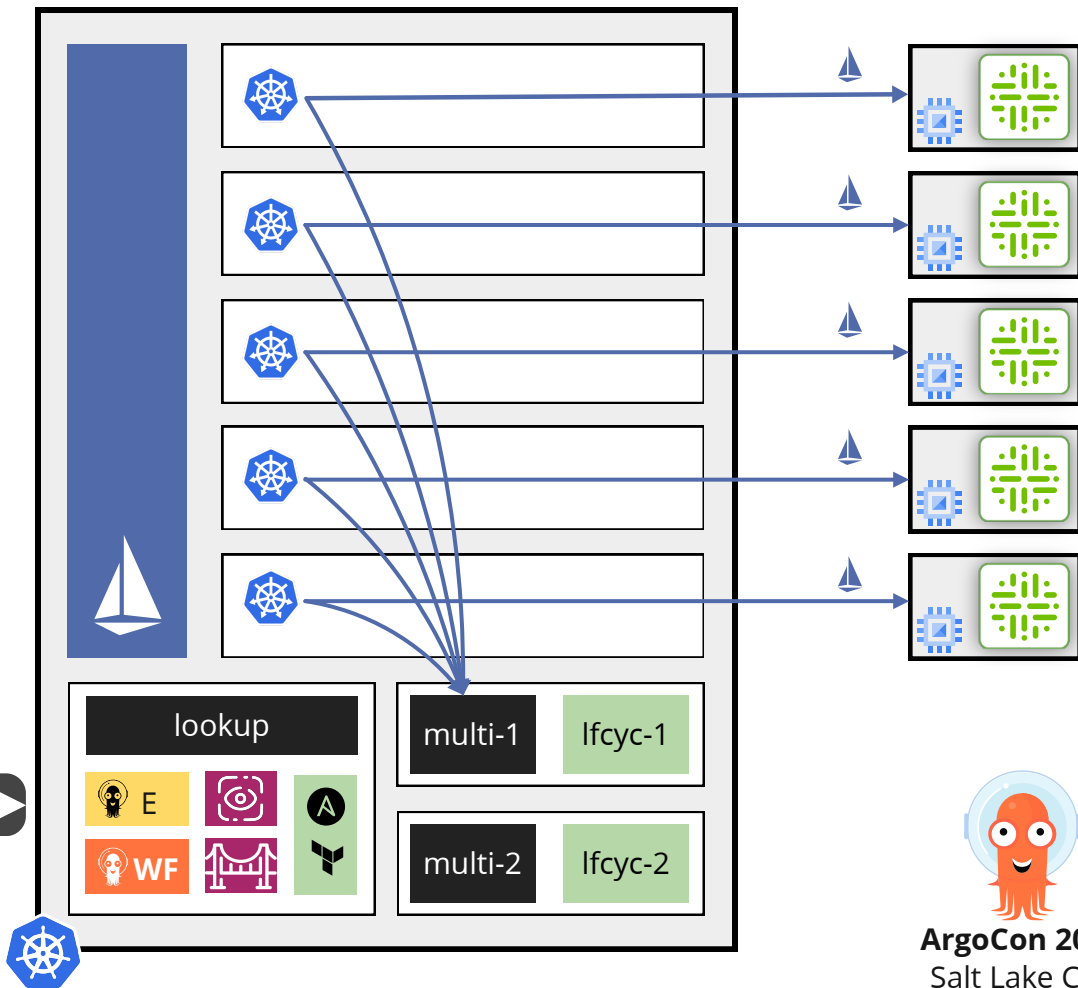
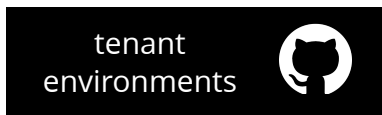
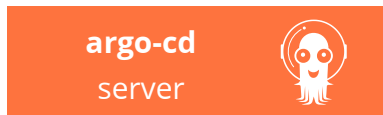
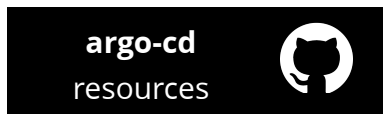
Arfo WF + E

modernising



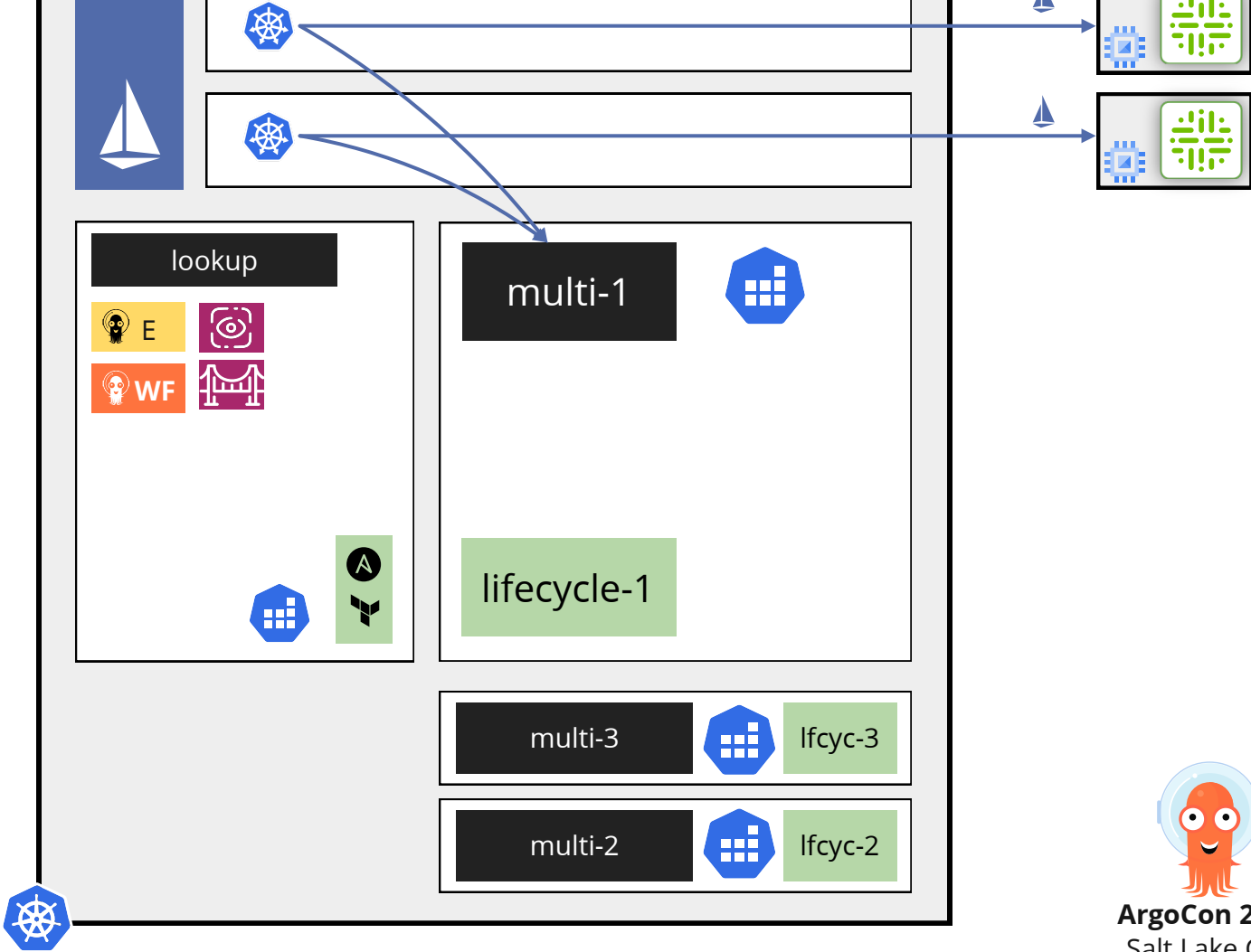
Hooking in Multi Tenant

making the lifecycle available



No custom CRD

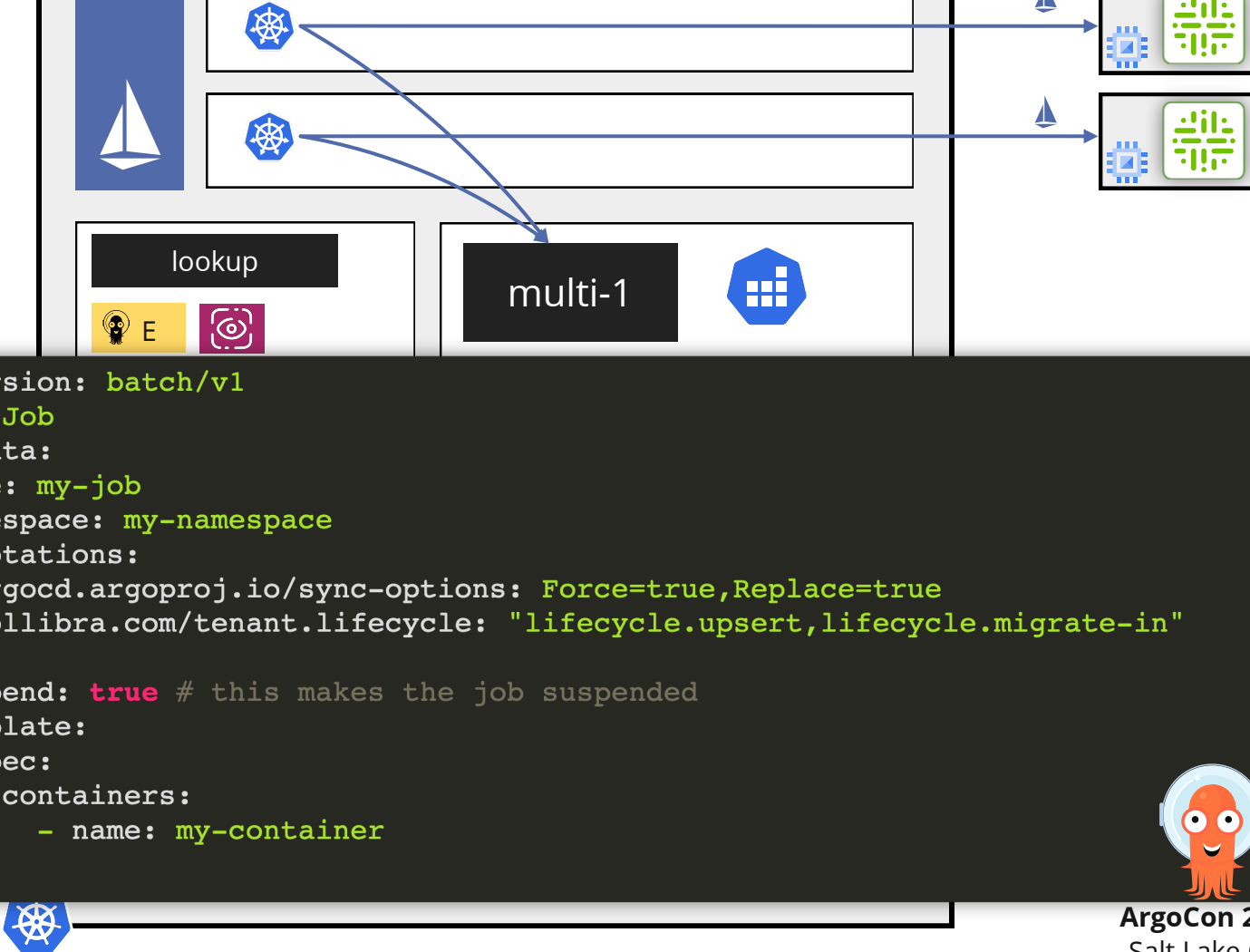
just reusing job kubernetes resource spec



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No custom CRD

custom annotations and suspend



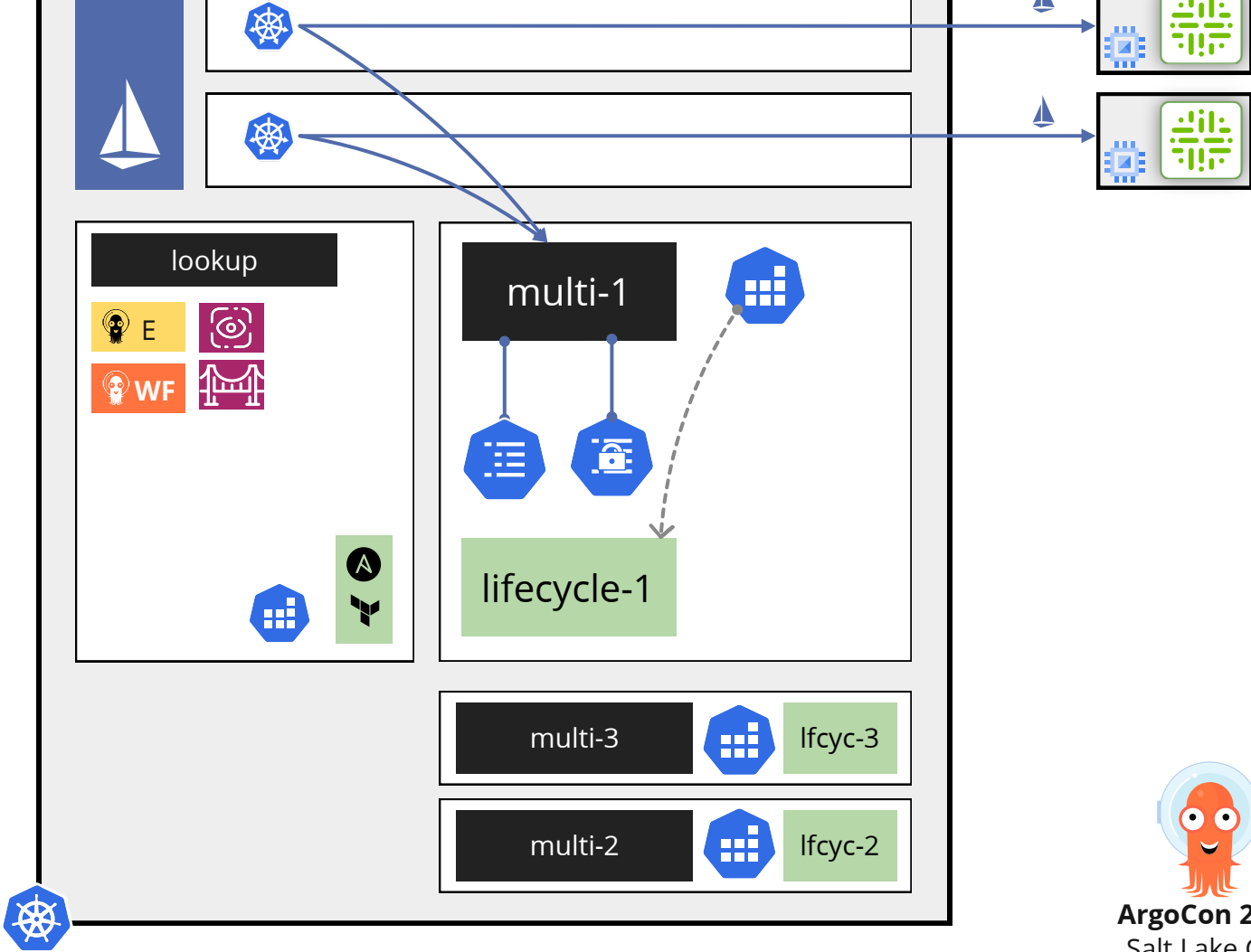
```
apiVersion: batch/v1
kind: Job
metadata:
  name: my-job
  namespace: my-namespace
  annotations:
    argocd.argoproj.io/sync-options: Force=true,Replace=true
    collibra.com/tenant.lifecycle: "lifecycle.upsert,lifecycle.migrate-in"
spec:
  suspend: true # this makes the job suspended
  template:
    spec:
      containers:
        - name: my-container
```



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No custom CRD

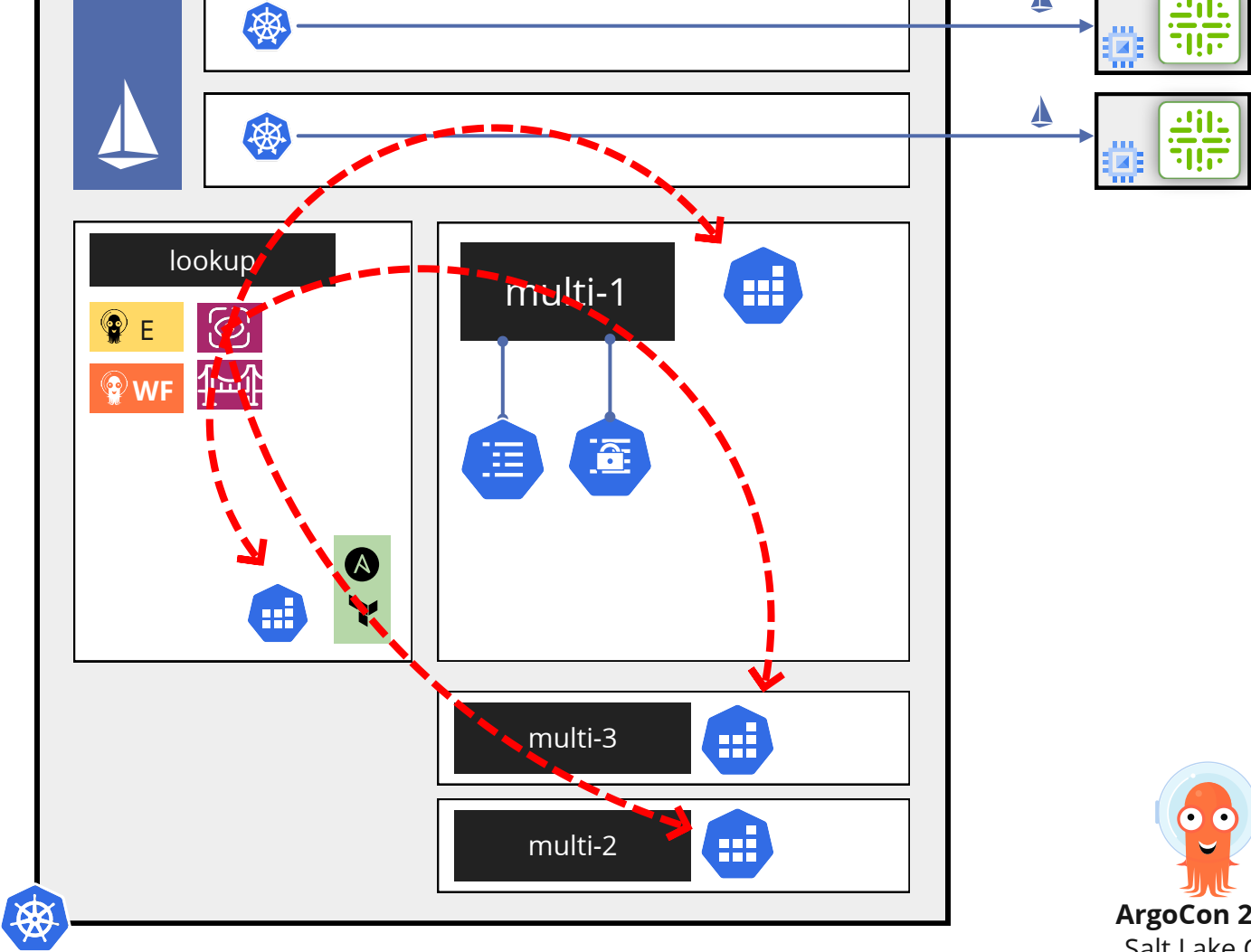
gives teams control, **reuse** resources



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Discovery

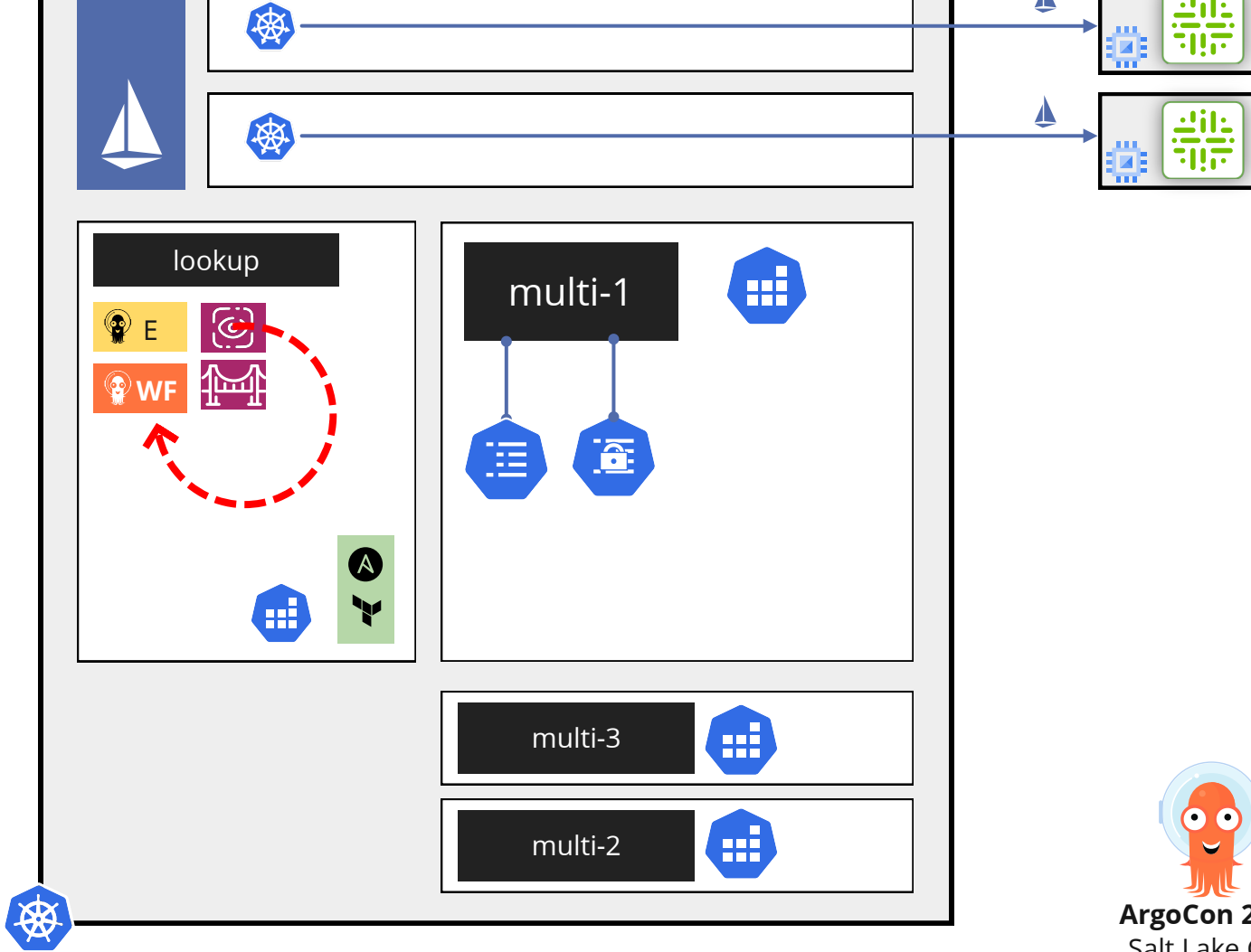
auto discovery, teams can introduce it **anytime**



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Discovery

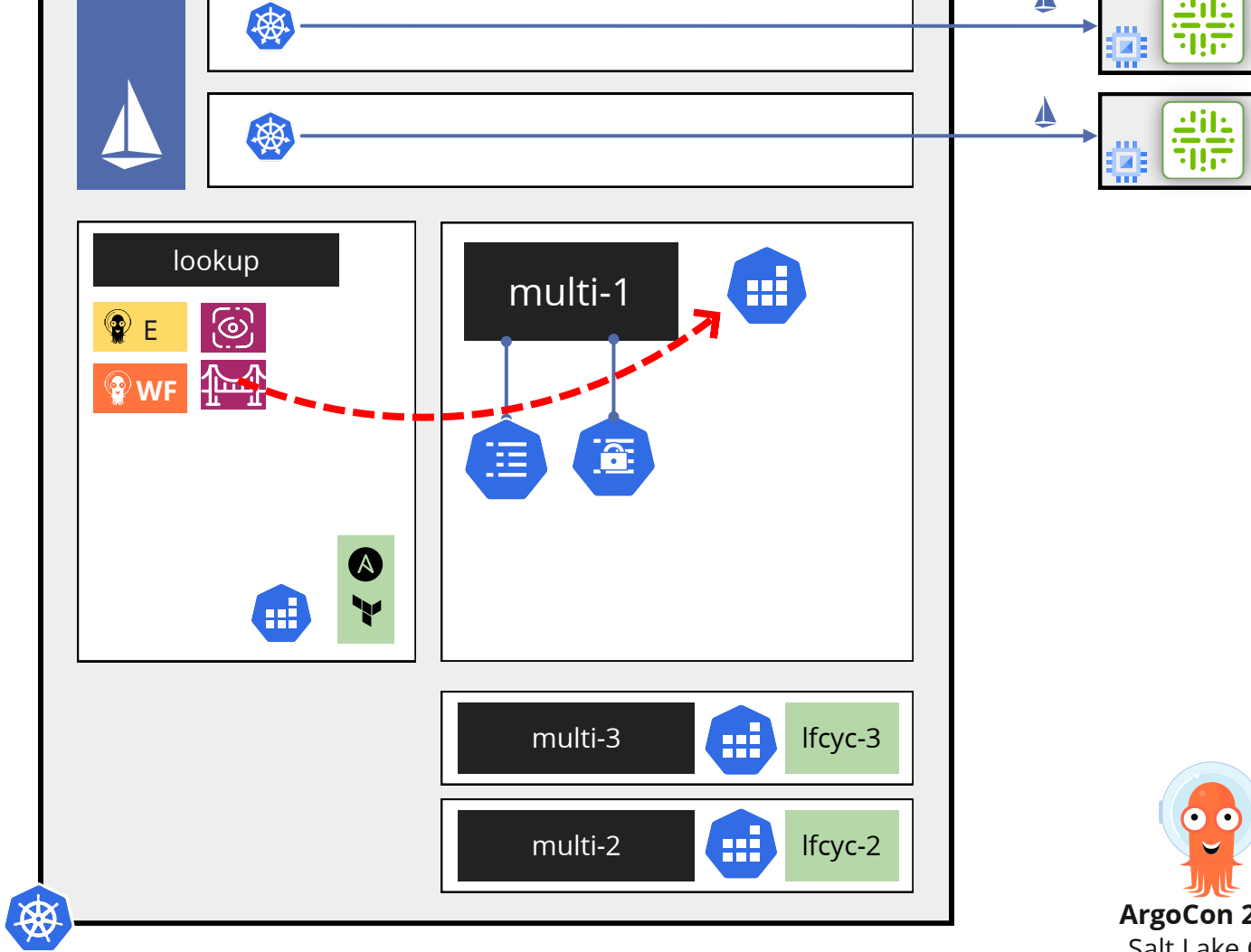
expands the Argo workflow



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Bridge

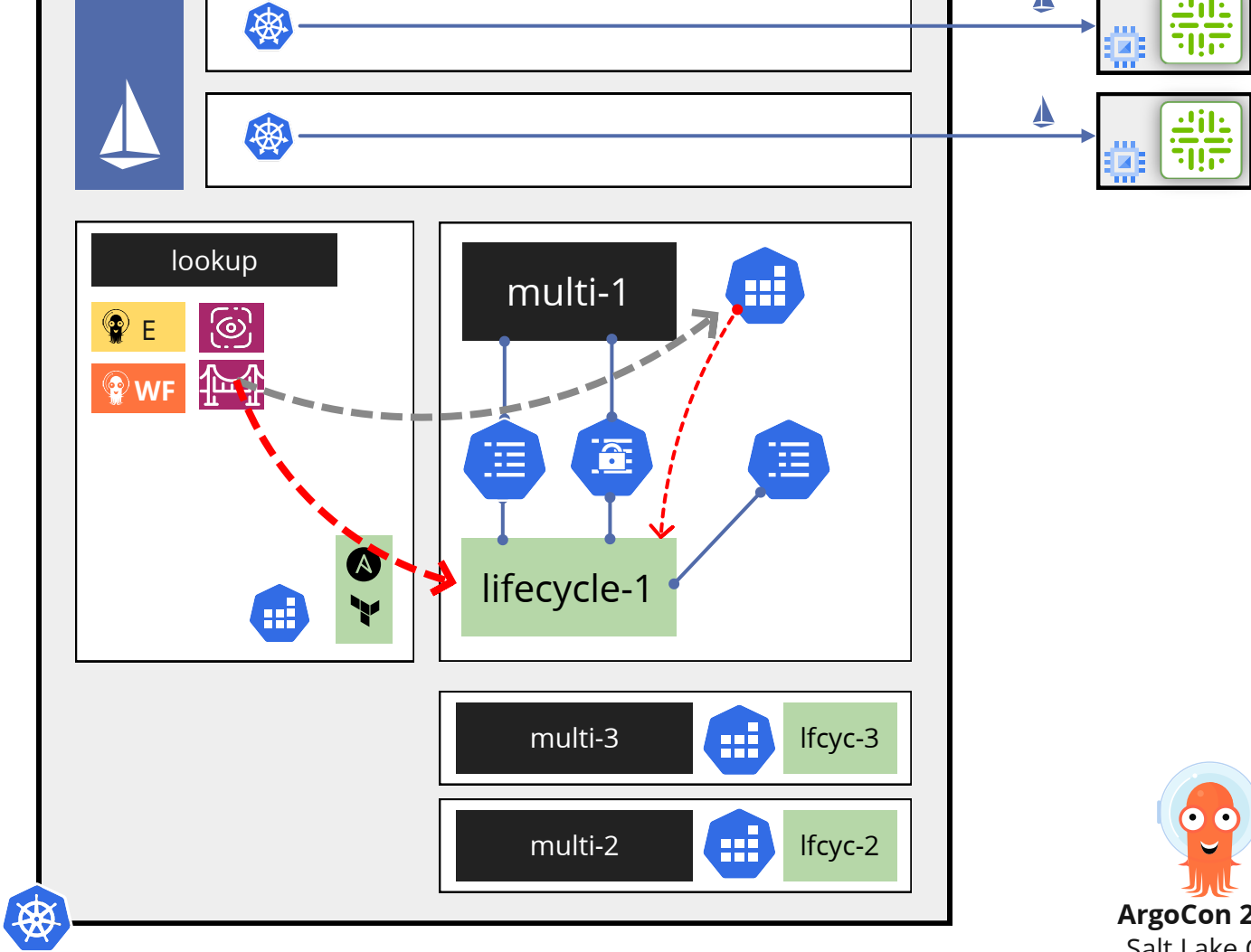
a bridge per discovery job spec



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Bridge

bridge in wf namespace, pod in job spec ns

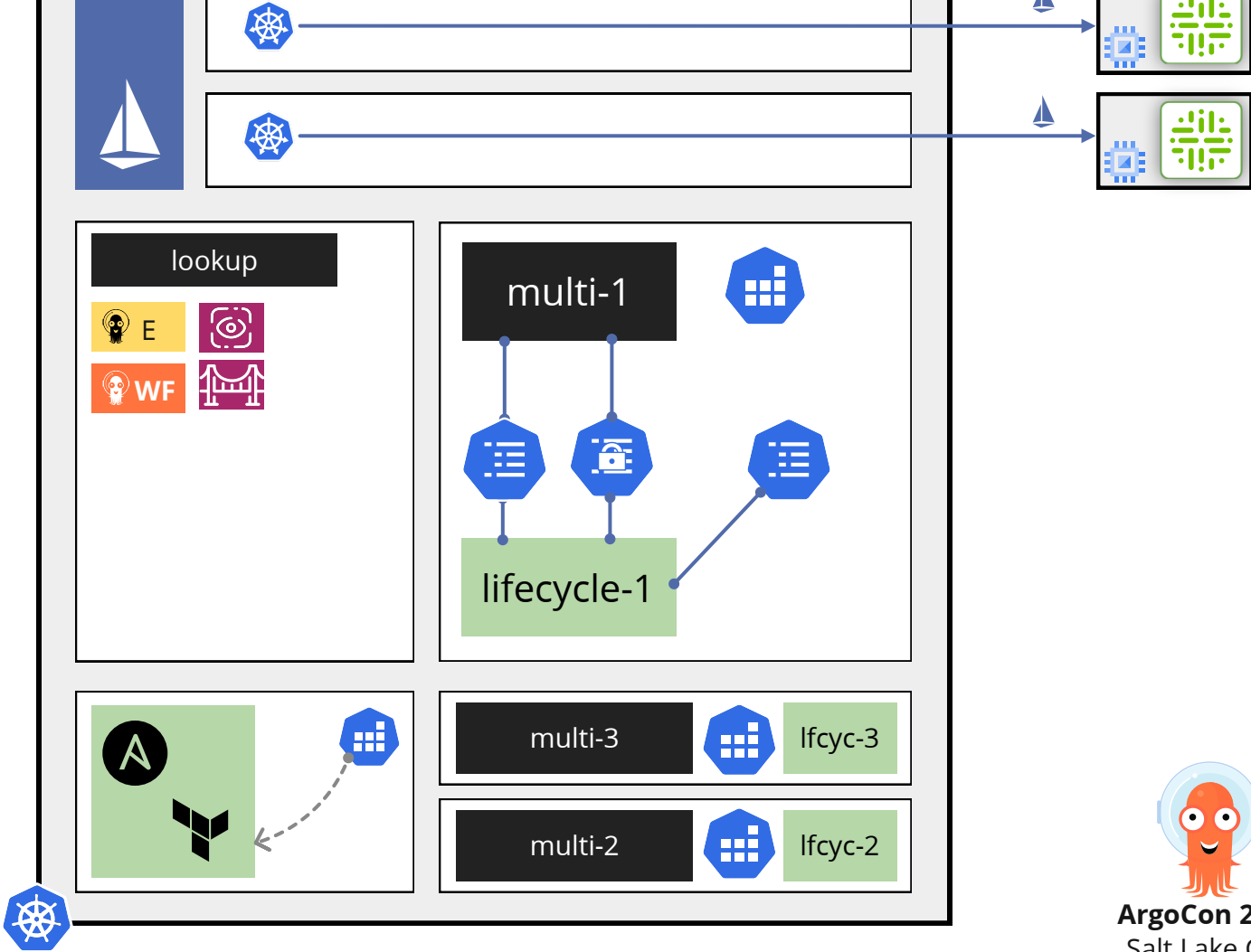


files are mounted, envvar's injected



Lifecycle Container

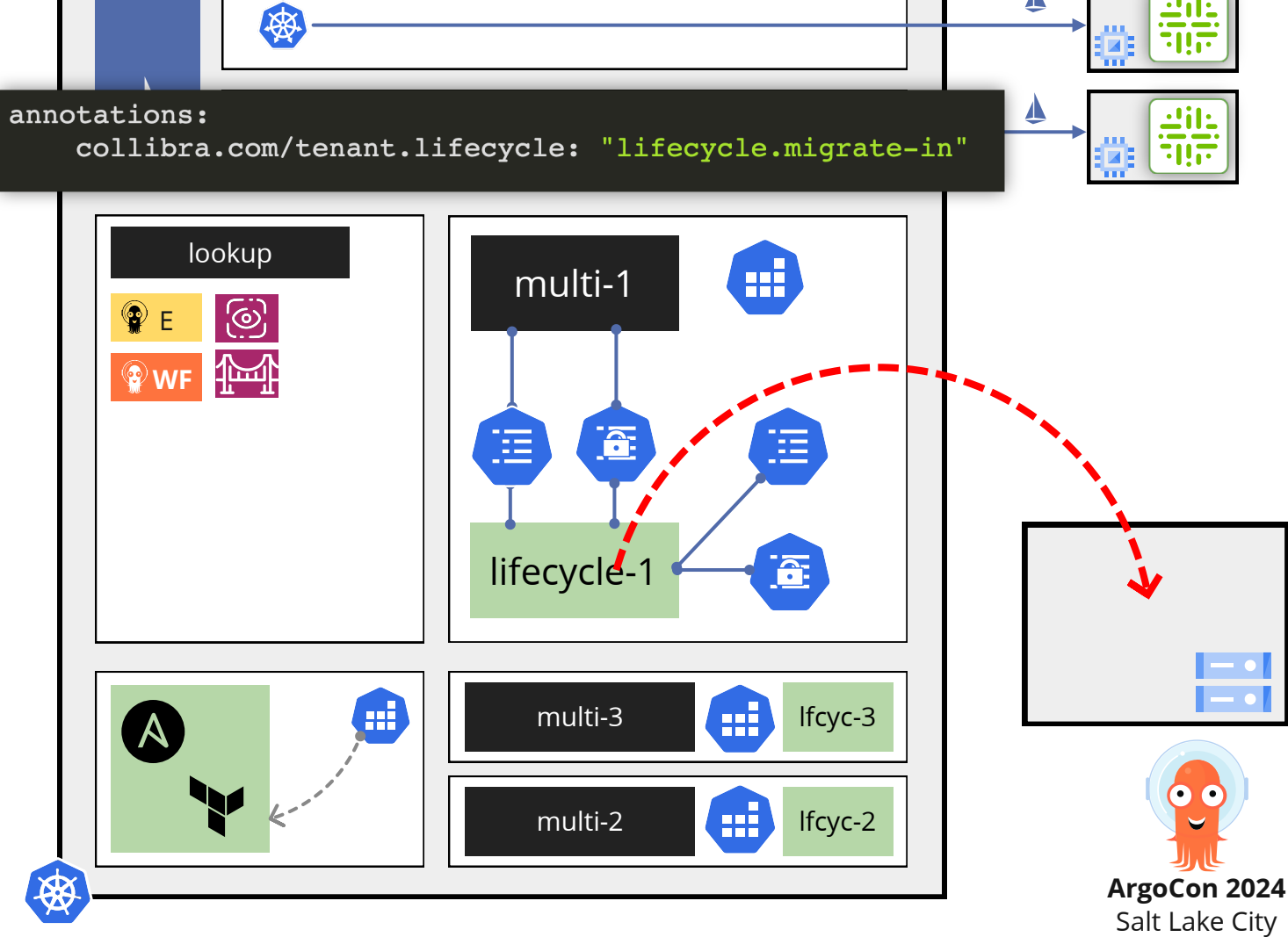
our ansible/tf code like any multi tenant service



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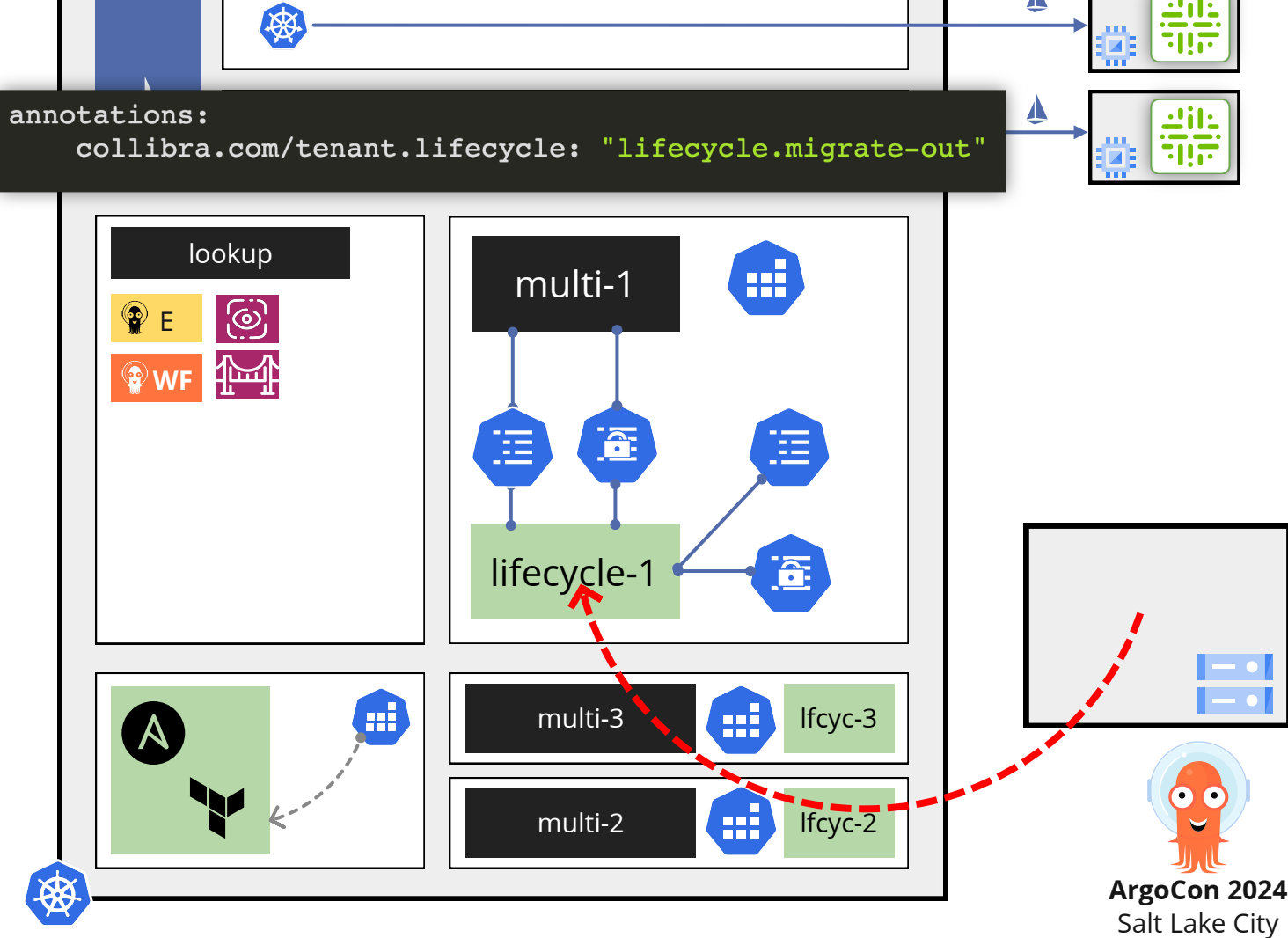
New - migrate out

migrating out of regions, inject **object storage**



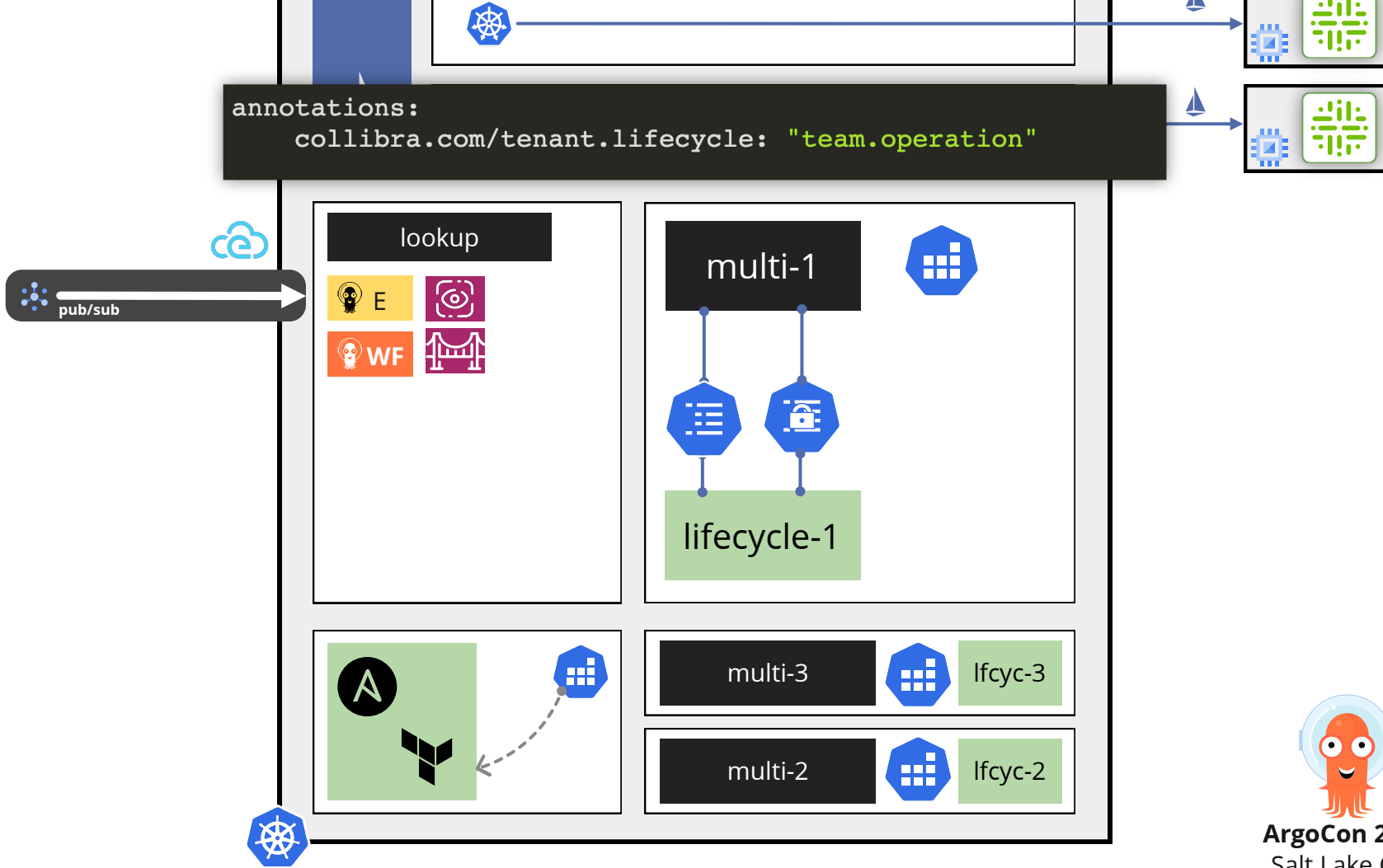
New - migrate in

the other side, import from object storage



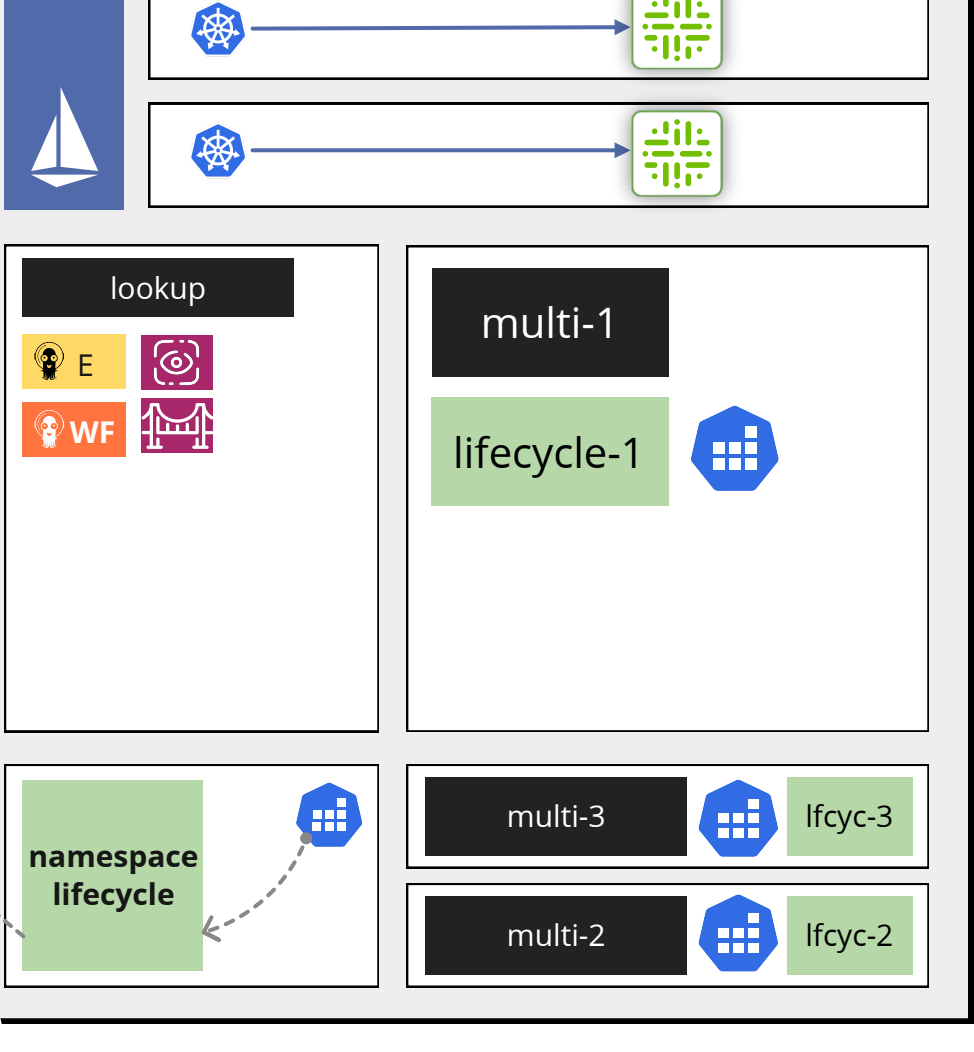
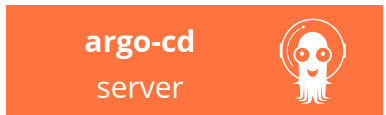
Admin Processes (XII)

reuse for enabling remote admin



Future state

full containerisation



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Result

- We have an **API** to manage out thousands of tenant environments (same prod/dev)
- Using Argo Events and Workflow, only **job templates** are exposed to teams for managing lifecycles, giving them **enough** control
- Argo CD for a single environment is managed by the Argo CD's API
- Argo CD **gitops** flows is still exposed for teams developing multi tenant services

