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CloudNativeCon

Europe 2026

#KubeCon #CloudNativeCon

Disclaimer: This presentation involves a live-demonstration. It will be more informative if following along with the live presentation or the recording afterwards.





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Declarative Edge Kubernetes

Immutable Clusters with Talos & Zarf





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Introductions

Brandt Keller



Staff SWE



Defense Unicorns



brandtkeller

Merijn Keppel



Principal consultant



TrueFullstaq



leppeK



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Our mission today!



Orbit - Sustainment
over time

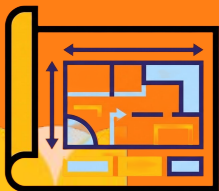
Operation - Upgrade
Talos linux



Ascent - Deploy your
workloads with Zarf



Take off - Why Talos Linux
is great for the Edge



Launch Prep - Edge and
airgap challenges



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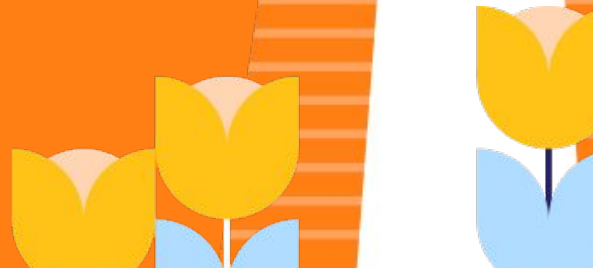
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Launch Prep — Edge and Airgap

- Inventory & Dependencies
- Declarative & Deterministic
- Predictable & Scoped





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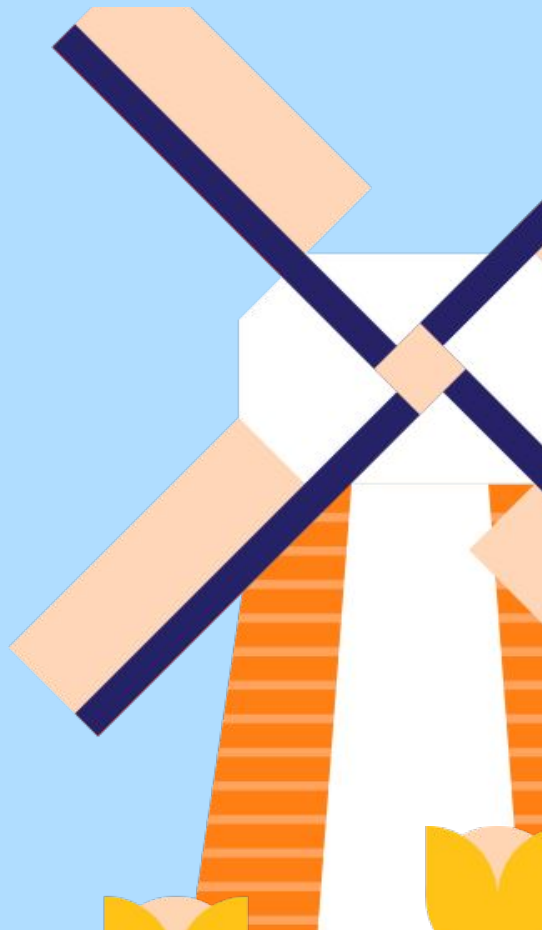


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Take off! – Deploy your workloads

Launch Talos, perfect fit for edge/airgap





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Ascent — deploy your workloads

Zarf - what does it bring?



```
kind: ZarfPackageConfig
metadata:
  name: dos-games
  description: Simple example to load classic DOS games into K8s in the airgap
  version: 1.3.0

# The documentation key can be utilized to pass information to package consumers
# Commonly used to detail package configuration, or as in this instance, application specific documentation.
documentation:
  walkthrough: "secrets.md"

components:
- name: baseline
  required: true
  manifests:
    - name: multi-games
      namespace: dos-games
      files:
        - manifests/deployment.yaml
        - manifests/service.yaml
  images:
    - name: zarf/dos-games:1.3.0
```



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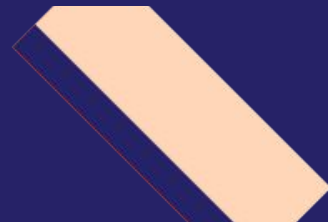
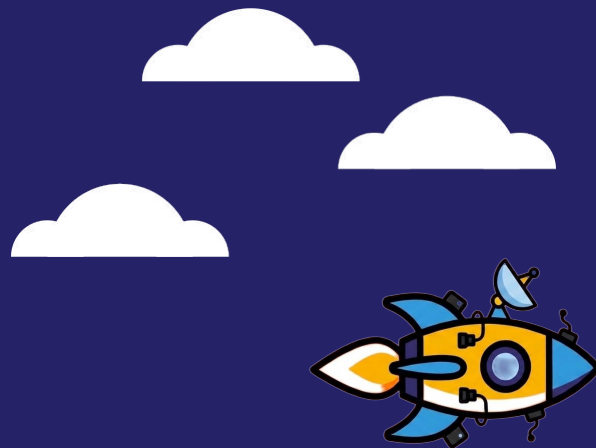


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Operation — Upgrade talos linux

Tying it all together.





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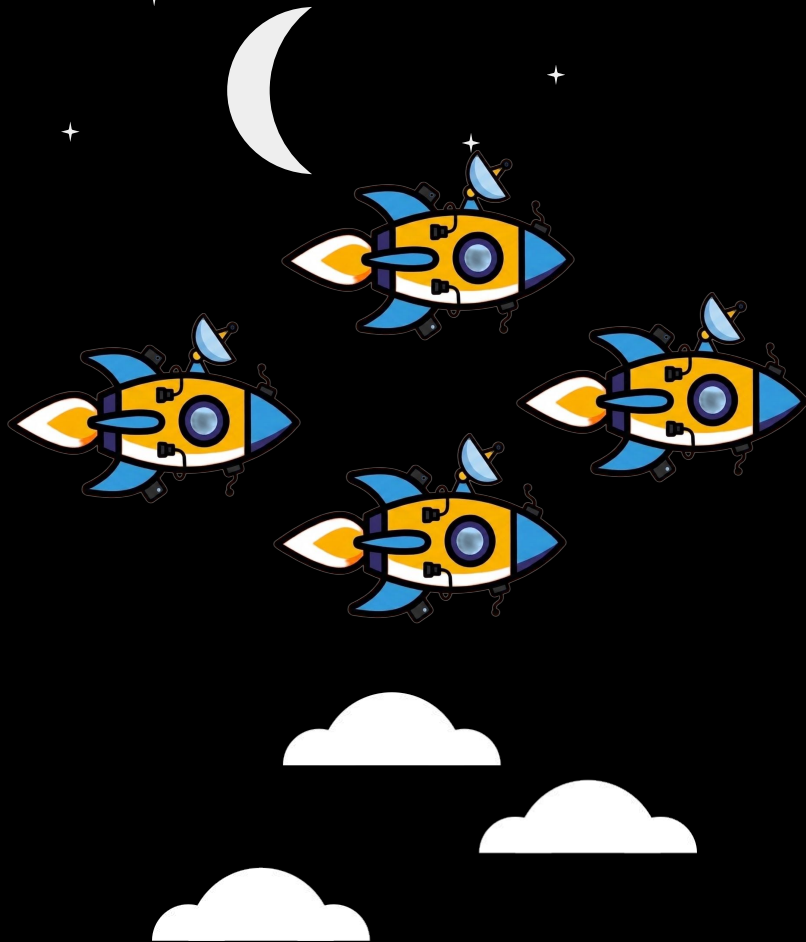
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Orbit — Sustainment over time

- Repeatable
- Secure
- Reliable

Join us for a Zarf
Tutorial session:
Thursday@13:45





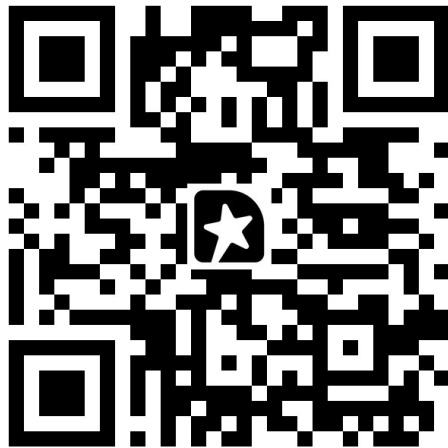
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Session Feedback



Declarative Edge Kubernetes: Immutable Clusters with Talos + Zarf



<https://zarf.dev>

