



# State of Checkpoint/Restore in Kubernetes

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# Checkpoint/Restore in Userspace

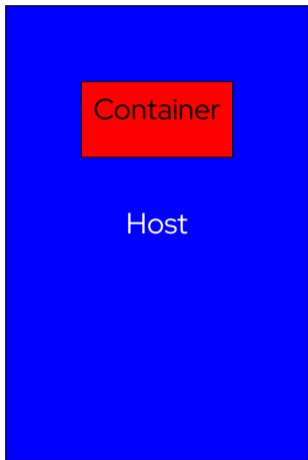
## CRIU

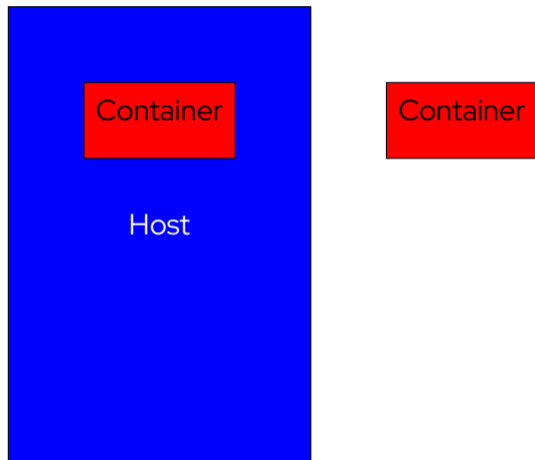
2015: Kubernetes

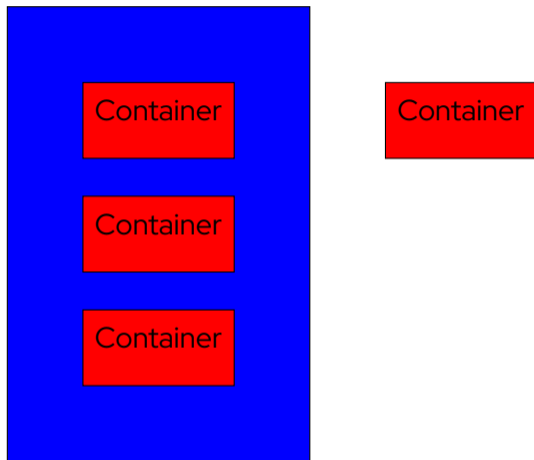
Ticket discussing container  
migration

# Use Cases

# Quick Startup

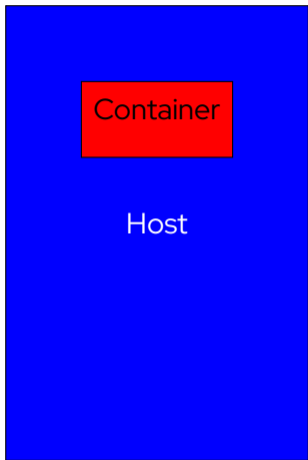


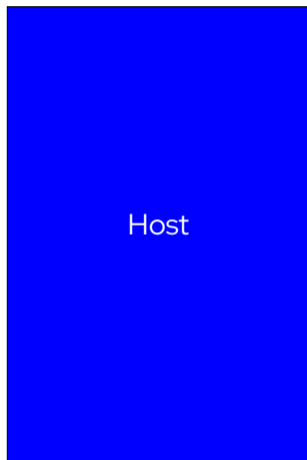




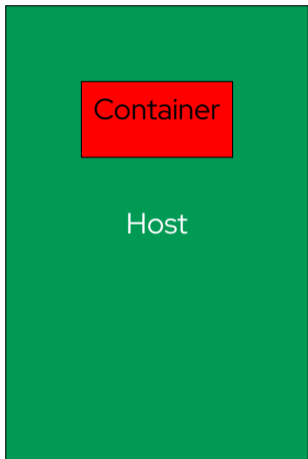


# Reboot and Save State

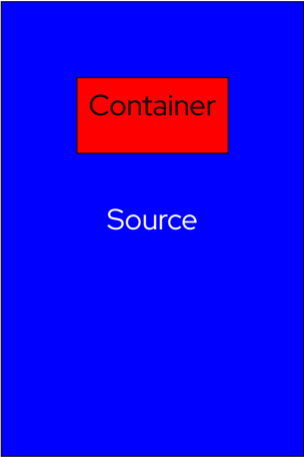


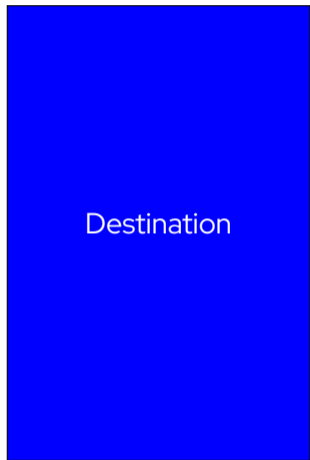
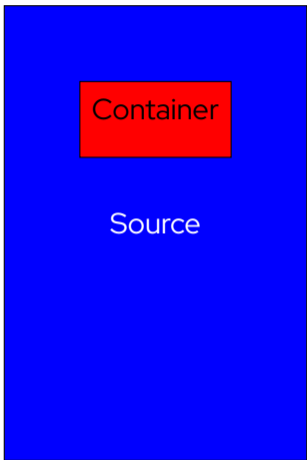


Container

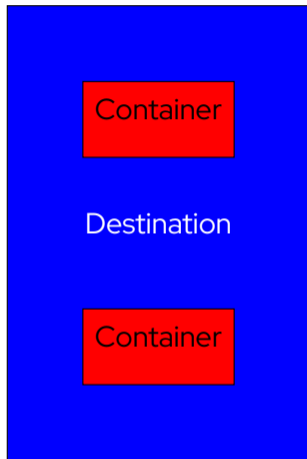
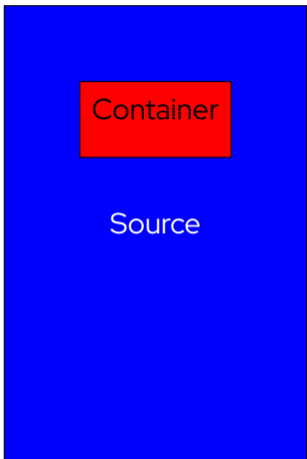


# Container Live Migration









# Spot instances

# GPU usage optimization

# Kubernetes

## Forensic Container Checkpointing

Kubernetes 1.25 (2022)

Alpha: Forensic Container  
Checkpointing

Kubernetes 1.30 (2024)

Beta: Forensic Container  
Checkpointing

# Kubernetes Container Restore

# Demo



# Next Steps

Declare checkpointing Stable/GA

# Next Steps

kubectl support

# Summary

- First mentioned 2015
- Alpha in 2022
- Beta in 2024
- Stable maybe 2025
- Discussion around kubectl support started



# Thank you