



State of Checkpoint/Restore in Kubernetes Now With GPUs

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Checkpoint/Restore in Userspace

CRIU

2015: Kubernetes

Ticket discussing container
migration

Kubernetes

Forensic Container Checkpointing

Kubernetes 1.25 (2022)

Alpha: Forensic Container Checkpointing

Kubernetes 1.30 (2024)

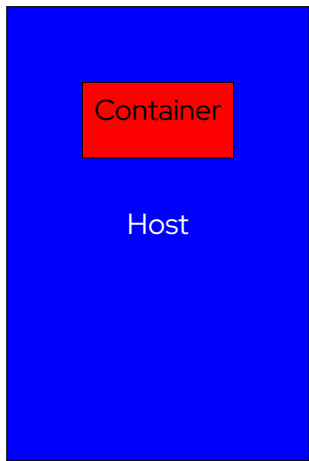
Beta: Forensic Container Checkpointing

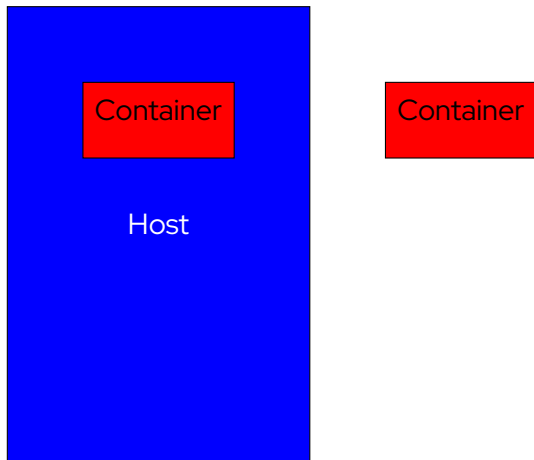
Kubernetes

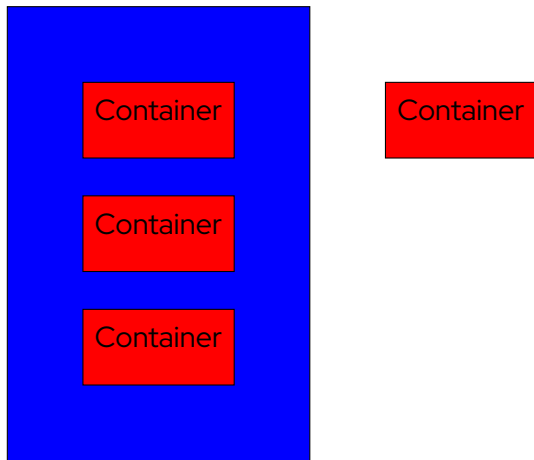
Container Restore

Use Cases

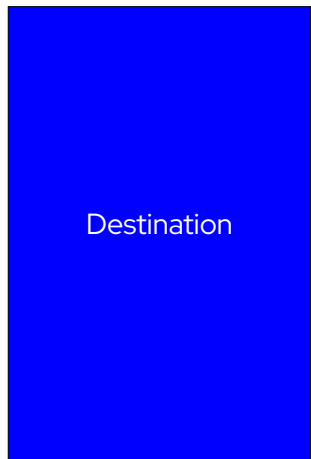
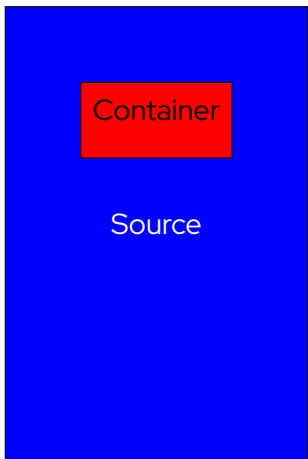
Quick Startup

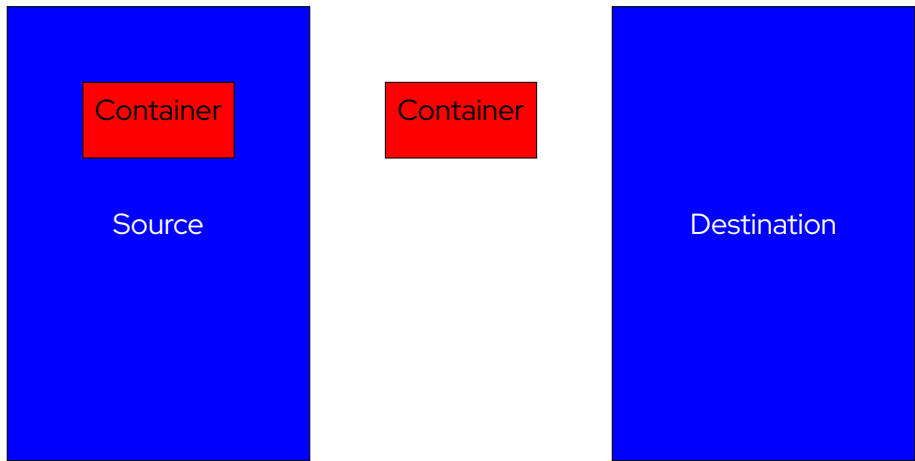


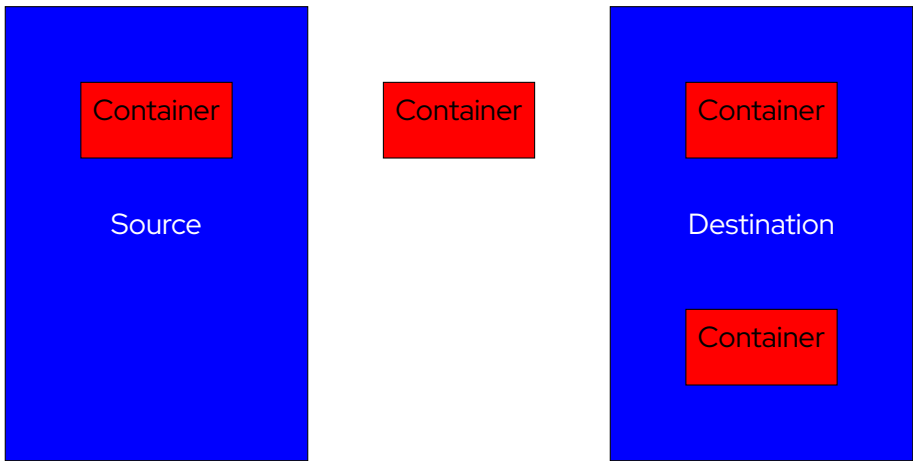




Container Live Migration







Spot instances

GPU usage optimization

Demo

Next Steps

Checkpoint Restore Working Group

Summary

- First mentioned 2015
- Alpha in 2022
- Beta in 2024
- GPU support since 2025
- Checkpoint Restore Working Group

