Orchestrating Containers within Production Oil and Gas HPC Workloads and Workflows
Docker performs well in proof-of-concept initiatives and/or pilot projects.

Transition to production use requires Docker containers to be:

- Incorporated into existing IT infrastructures and application workflows.
- Managed in the same way other types of workloads and workflows are managed.

Containers are isolated, but share OS and, where appropriate, binaries/libraries.
Preliminary Conclusions

- Docker containers *can* be managed in the same way as other types of workloads and workflows
- Early adopters report “easier replication, faster deployment and lower configuration and operating costs” of workflows involving Docker containers
  - Needs to be validated for oil and gas use cases
- Latency intolerant MPI applications *not* a ‘good fit’ for Docker containers
- Use of GPUs via Docker containers appears promising
- Alongside Kubernetes, Docker containers key to cloud-native applications