

# Best Practices for Running Containers and Kubernetes in Production

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The container ecosystem is immature and lacks operational best practices, but adoption of containers and Kubernetes is increasing for legacy modernization and cloud-native applications. We outline best practices for I&O leaders to enable and expedite container deployment in production environments.

## Overview

### Key Challenges

- Container usage for production deployments in enterprises is still constrained by concerns regarding security, monitoring, data management and networking.
- Cloud-native applications require a high degree of infrastructure automation and specialized operations skills, which are not commonly found in enterprise IT organizations.
- Identifying, creating and empowering the right team is challenging, due to legacy mindsets and operational burdens on team members.
- There is a hodgepodge of competing vendor interests, uncertain monetization strategies and varied consumption models. This makes vendor selection more difficult, poses serious questions about the commitment of large vendors and affects the viability of startups in the container space.

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