

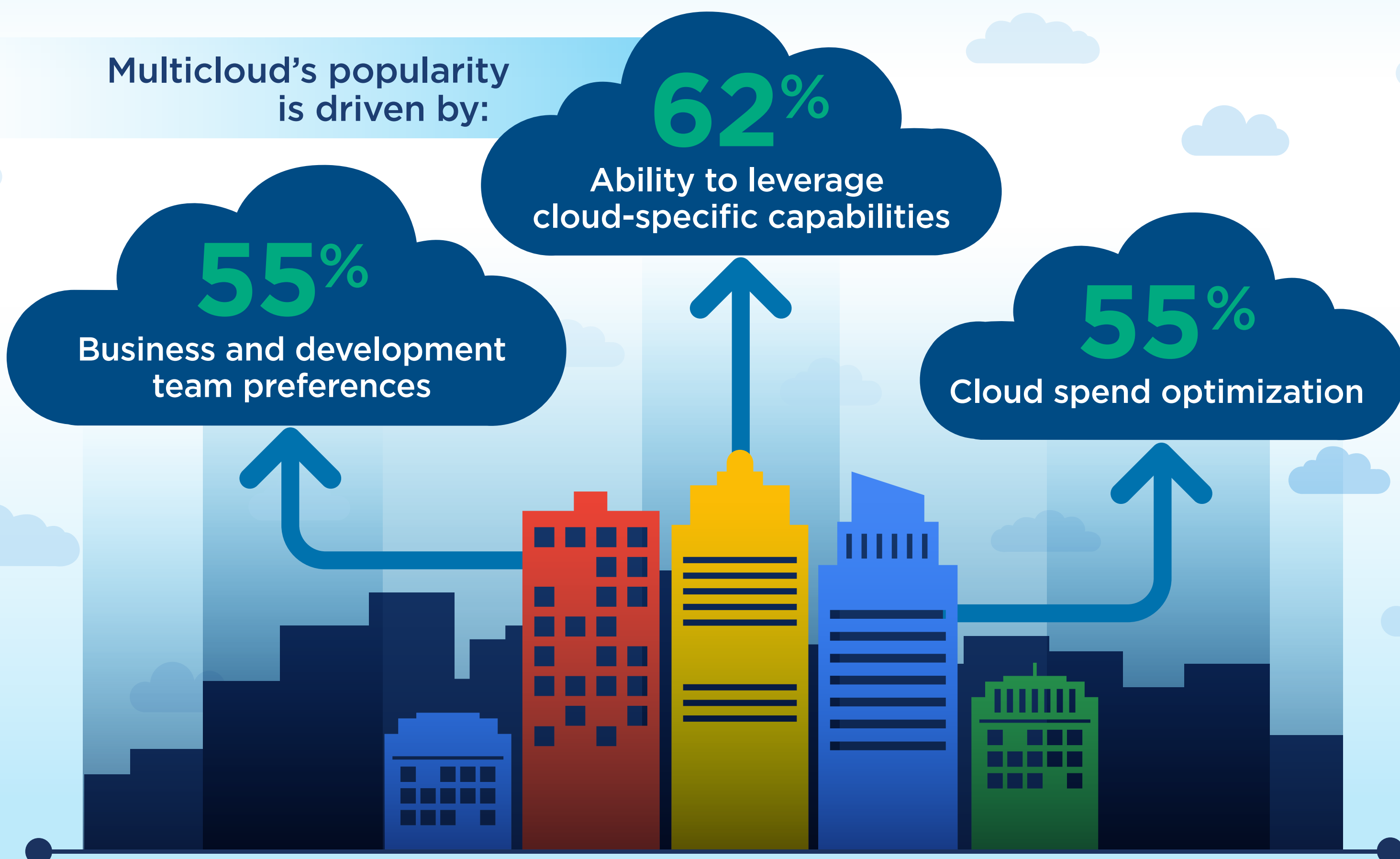
Unleashing Multicloud Innovation

with Containers and
Kubernetes

Enterprises Gravitate to Multicloud

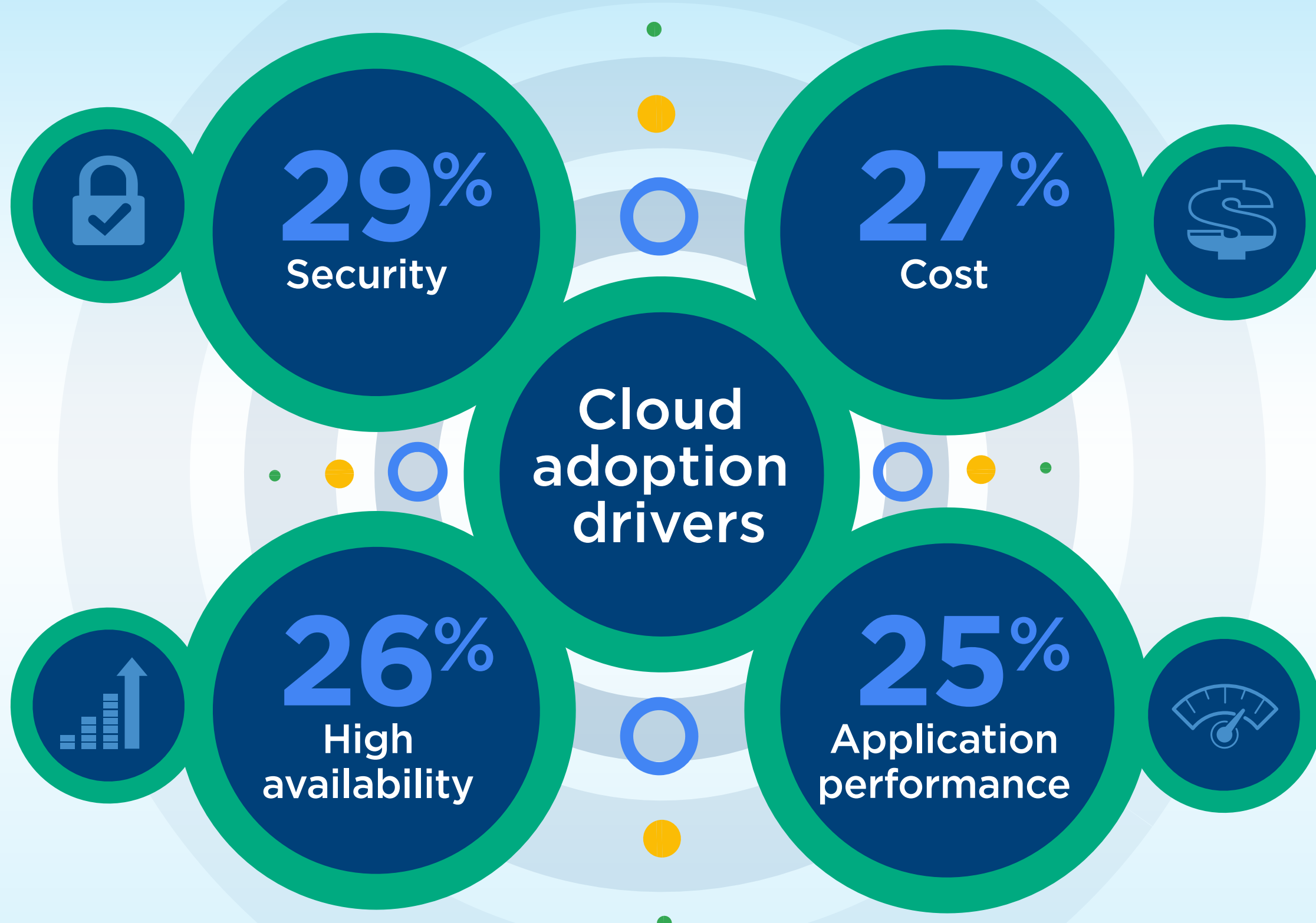
93% of enterprises use multicloud architectures with on-premises and public cloud platforms to support a variety of business applications

Multicloud's popularity is driven by:



Source: IDC Multicloud Management Survey, March 2019. N = 200 U.S.-based enterprise I&O decision makers using multiple infrastructure clouds

What Fuels Cloud Adoption for Production-Grade Workloads?



47% of applications developed on public clouds are deployed elsewhere for production – including on-premises and hosted private clouds as well as traditional datacenters

Source: IDC, PaaSView and the Developer, June 2019. N = 2,500

Growing Use of Containers Increases Multicloud Management Complexity

Containers increase the rate of change and drive demand for highly scalable multicloud infrastructure

New applications are rapidly becoming containerized:

500M New logical applications published by 2023

Source: IDC FutureScape: Worldwide Developer and DevOps 2020 Predictions, October 2019

Multicloud management challenges posed by containers:

64% Security and compliance

61% Workload placement and cost decisions

60% Demand for cloud migration

Source: IDC Multicloud Management Survey, March 2019. N = 200 U.S.-based enterprise I&O decision makers using multiple infrastructure clouds

Enterprise Architectures Will Become Highly Distributed, Agile, and Hybrid by 2023

By 2022, the acceleration of legacy app modernization and net-new development will lead to **35%** of production apps being cloud native

— utilizing microservices, containers, and dynamic orchestration

Source: IDC FutureScape: Worldwide Developer and DevOps 2020 Predictions, October 2019

66% of firms will be beyond piloting AI/ML as part of application development

50% of new enterprise IT infrastructure deployed will be at the edge rather than corporate datacenters

50% of enterprise applications will be deployed in a containerized hybrid cloud/multicloud environment

40% of organizations will release code to production daily for select applications

Sources: IDC FutureScape: Worldwide Cloud 2020 Predictions, October 2019; IDC FutureScape: Worldwide IT Industry 2020 Predictions, October 2019

Consistent, Multicloud Container Management Is Needed

70% of enterprises will deploy unified VMs, Kubernetes, and multicloud management processes to support robust multicloud management and governance across on-premises and public clouds by 2022

Source: IDC FutureScape: Worldwide Developer and DevOps 2020 Predictions, October 2019

Priorities for IT Operations

37% Increasing use of automation

33% Managing cost and life cycle of container infrastructure

31% Optimizing container runtime costs across multiple clouds

Priorities for Developers

Integration
42%
Integration of CI/CD tool chains and microservices management

Infrastructure
39%
Managing cost and life cycle of container infrastructure

Monitoring
37%
Deploying and updating monitoring agents across development tool chains

Images
37%
Consistent management of container images and registries

Source: IDC Containers and Cloud Management Survey, May 2019. N = 189 enterprise IT decision makers representing U.S. organizations with \$1+ billion annual revenues

Learn more about the Google Cloud and HPE partnership at cloud.google.com/hpe and hpe.com/us/en/alliance/google-cloud.