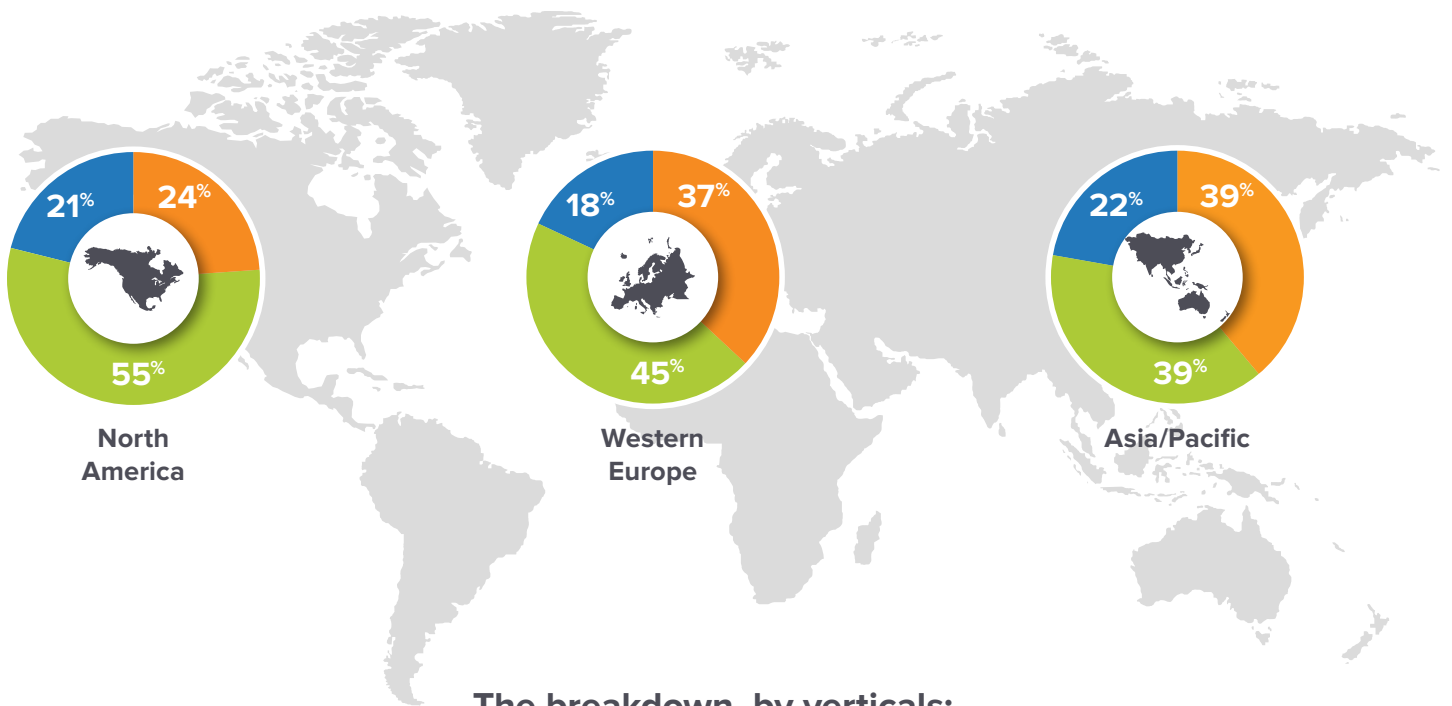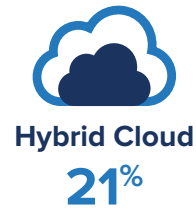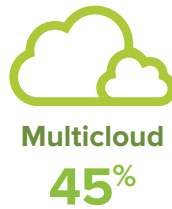# DELIVERING ENTERPRISE HYBRID MULTICLOUD CONNECTIVITY

The mainstreaming of hybrid and multicloud architectures entails extensive modernization and transformation of the IT infrastructure, including that of the network. Enterprises that fail to properly appreciate this invariably discover that the network will ultimately inhibit successful digital transformation.

This IDC Infographic gives a quick overview on the network implications of hybrid and multicloud trends, and the benefits of adopting this architecture.
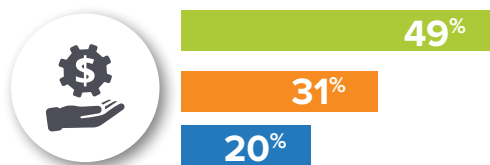
The New Normal: Hybrid and Multicloud

90% of enterprises worldwide will rely on a mix of on-premises/dedicated private clouds, several public clouds, and legacy platforms to meet their infrastructure needs by 2021.

Globally

Single Cloud
34%

Multicloud
45%

Hybrid Cloud
21%

North America
21% 24% 55%

Western Europe
18% 37% 45%

Asia/Pacific
22% 39% 39%

The breakdown, by verticals:

Financial Services
49%
31%
20%
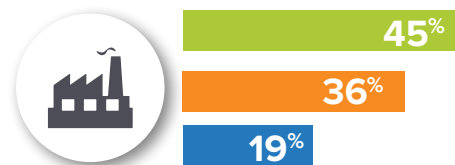
Manufacturing
45%
36%
19%
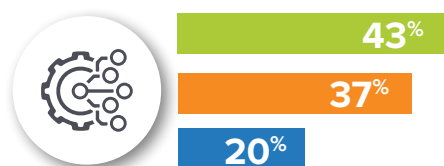
Infrastructure and Technology Services
43%
37%
20%
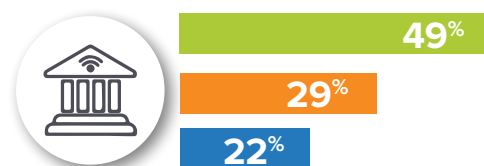
Public Services
49%
29%
22%

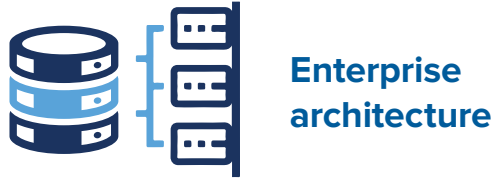**Hybrid and multicloud approaches are becoming the new normal to support business agility and concentration risk.**

Organizations are adapting their architectures for enhanced network performance and reliability

Enterprise architecture

Consistent, extensible network and security policy

Intelligent, policy-based network automation and control

Hybrid, multicloud architecture

Revamped network

A new way of routing traffic expeditiously and reliably through cloud middle miles and cloud cores.

Benefits

Secure ingresses and convenient on-ramps into clouds to mitigate

Latency
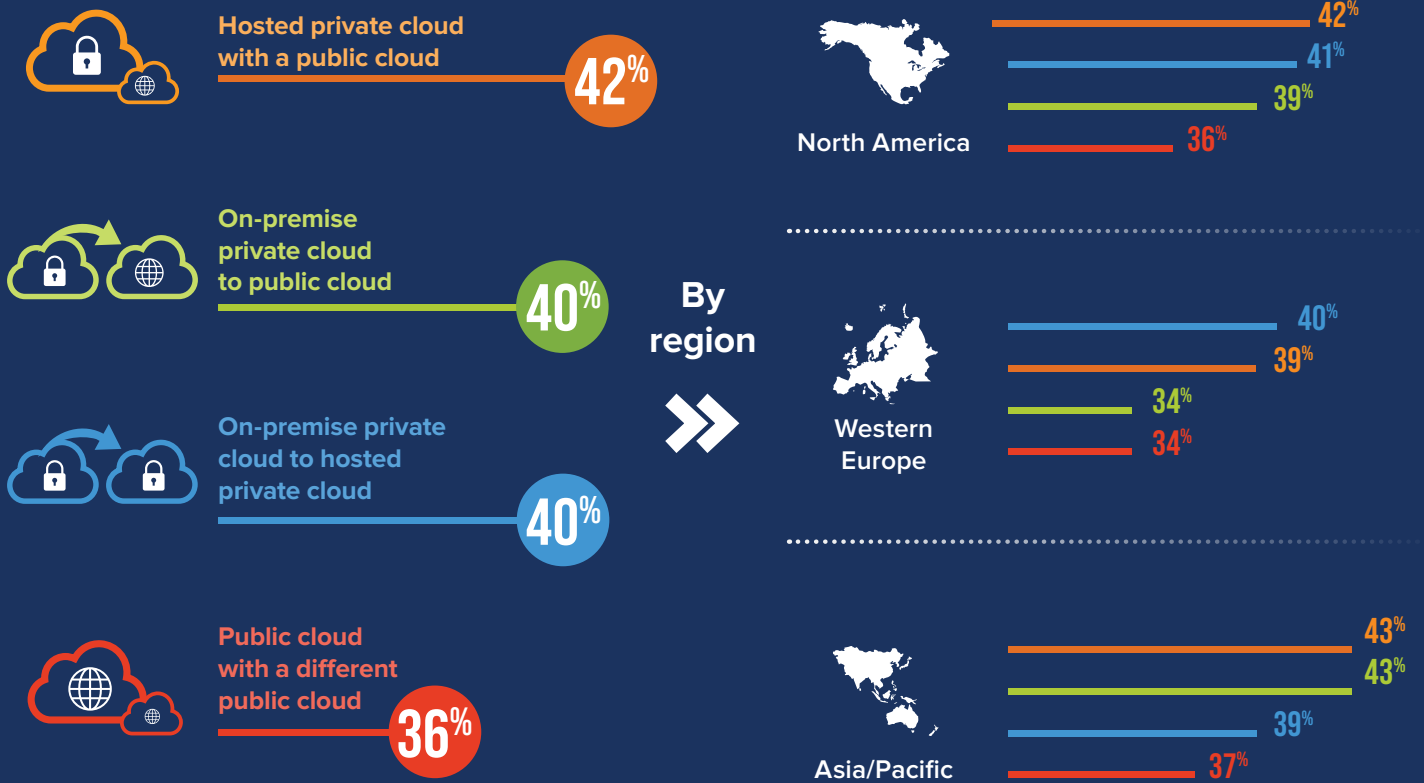
Enhance application experience

Improve availability

Why Hybrid Multicloud Connectivity?

Increasing interdependencies of business applications drives network traffic between clouds, resulting in the need for cloud-to-cloud connectivity.

Cloud-to-Cloud Connectivity

Hosted private cloud with a public cloud — **42%**

On-premise private cloud to public cloud — **40%**

On-premise private cloud to hosted private cloud — **40%**

Public cloud with a different public cloud — **36%**

By region »

North America
- 42%
- 41%
- 39%
- 36%

Western Europe
- 40%
- 39%
- 34%
- 34%

Asia/Pacific
- 43%
- 43%
- 39%
- 37%

According to a recent IDC survey:

The top two priorities and challenges in hybrid IT and multicloud were:

1. Ensure data security and compliance
2. Improve network performance

And, when it came to cloud investments:

59% of enterprise respondents indicated that **INTEGRATED NETWORK PROCESSES** would be an important area during the next two years.

Enterprises migrating applications to public infrastructure as a service (IaaS) clouds and software as a service (SaaS) environments have resulted in both the datacenter and the datacenter network becoming distributed.

What is Hybrid Multicloud Networking?

Vendors in the networking space have been facilitating this move through different solutions.

PUBLIC CLOUD

Connectivity
Communications service providers are offering their transport networks, hosting services, and connectivity services to clouds.

Architecture
IaaS cloud vendors offer:
- Cloud cores
- Global transit networks
- Cloud wide area networks (WANS)

Overlays
Software-defined WAN (SD-WAN) vendors are partnering with IaaS clouds and interconnection-oriented service providers to offer overlays at the edge to:
- Augment the last-mile with pops
- Circumvent the Internet and provide better service and greater security

ENDPOINT DEVICES

Customer Mobile

Enterprise IoT

CORE

HQ
Enterprises On-Premises

Datacenter
3rd Party Managed Co-location

EDGE

Branches
Enterprises On-Premises/

Policies
Enhanced and extended datacenter software-defined network platforms support:
- The definition and enforcement of consistent network and security policies

Hybrid, muticloud networking addresses the complexity in networking, which usually translates into costly and lengthy processes. Overcoming this complexity requires cross-cloud networking expertise, which is often lacking in most enterprise IT departments.

Why should organizations adopt hybrid and multicloud networking?

A well-built hybrid and multicloud network can deliver a range of cloud-aligned capabilities:

On-demand
Like the cloud, a hybrid and multicloud network should be on-demand—provisioned, deployed, and available when needed.

Autoscaling
Just as cloud resources scale up and down automatically as needed, a hybrid and multicloud network must similarly autoscale in alignment with the requirements of cloud workloads and resources.

Agility and speed
A hybrid and multicloud network, which supports distributed cloud workloads, will be agile and capable of operating at the speed of digital business.

Pervasive, real-time visibility
Enterprises pursuing hybrid and multicloud often encounter a range of visibility challenges, including intermittent or partial visibility across clouds and too many blind spots.

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