

BEYOND THE BUZZWORD

Multicloud Networking

A Softchoice guide to separating
the buzz from the business value

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What's all the buzz about?

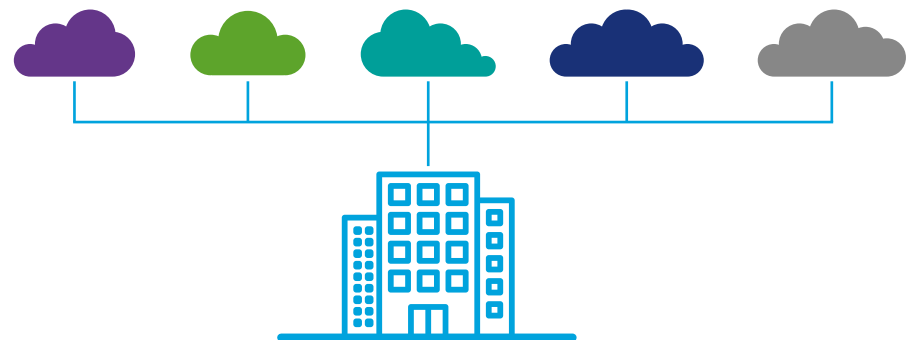
A quick look at the statistics reveals we are living in a multicloud world. According to RightScale, 81 percent of enterprises are taking part in the trend – leveraging five clouds each, on average. By 2021, IDC says that number will inflate to 90 percent. What is a little more difficult to quantify are the challenges that this adoption of multiple public clouds is causing.

Simply put, as enterprises leverage more and more clouds, complexities, vulnerabilities and inefficiencies tend to follow suit. All of which puts the strategic and operational gains promised by the cloud at risk.

Which brings us to the latest buzzword in the world of cloud adoption: multicloud networking. As you will discover in this guide, multicloud networking gives enterprises a powerful, simplified way to manage and secure multiple clouds. With it, businesses will smooth integration, speed to market innovative applications and adopt a more sophisticated response to modern day cyber security threats.

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What is multicloud networking, really?



From a purely technical view, multicloud networking provides a unified solution to create, manage and secure core networking functions across a disparate mix of public clouds and on-premise data centers (see Figure 1).

Multicloud Networking is achievable through a Software-Defined Networking (SDN) architecture featuring software-defined overlays or controllers that are abstracted from the underlying network hardware, offering intent-or policy-based management of the network as a whole. This results in a cloud network that is better aligned with the needs of application workloads through automated (thereby faster) provisioning, programmatic network management, pervasive application-oriented visibility, and where needed, direct integration with cloud orchestration platforms.

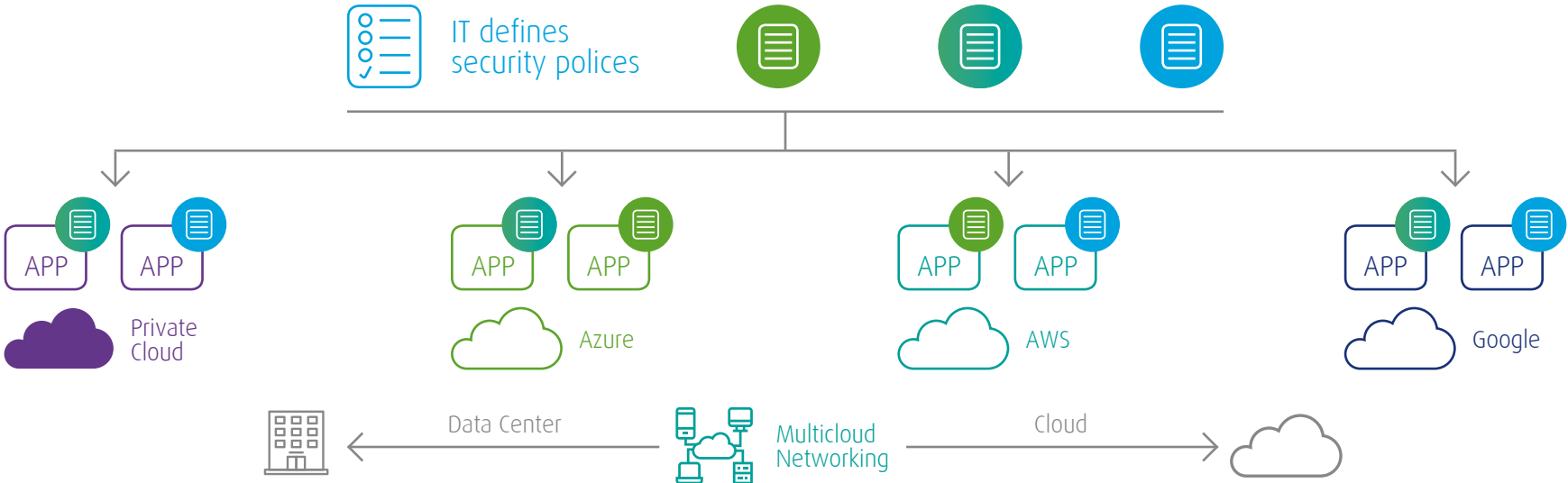


Figure 1

Why now?

The cloud has become the new silo. With the advent of cloud computing, the enterprise found a powerful alternative to the traditional three-tiered data center. By practically renting core infrastructure, platforms and applications, you no longer had the same maintenance or upfront capital fees. In principle, this would get rid of silos and eliminate unneeded costs, allowing businesses to move more quickly and unlock efficiencies. Then along came the rise of multicloud, and with it a familiar set of problems:

The key networking challenges of multicloud environments:



Integration headaches: With every new cloud service, comes a new set of management tools, APIs and architectures – all of which increases complexity and manual effort for administrators and creates new silos within IT.



New security threats: Perimeter-based defenses are ineffective in today's multicloud environment, giving IT no ability to prevent threats from traversing laterally once inside the network or cloud-connected instance.



Slowing innovation: To keep up with speed of Agile development, having a uniform and consistent set of network and security policies across private and multiple public cloud deployments is a must. Without network automation, scaling deployments across cloud environments can slow down developers.



Availability risks: As cloud environments sprawl, the risk of costly downtime and interruptions increases, as IT struggles to port workloads between locations, or recover applications with all the associated compute, storage and networking configurations.



Case in Point: A Softchoice Customer Story

Financial Company Boosts IT Productivity with Network Consistency

Challenge:

Multiple mergers and acquisitions with heavy regulatory compliance created multiple physical network and security technologies to integrate and manage, which was very time consuming and costly.

Solution:

Softchoice helped deliver a VMware NSX Software-Defined Data Center Network with automated policies and integrated security features.

Business Impact:

Cost reduction and increased IT productivity due to a consistent network and security policy, that scales across multiple business locations and departments.

Benefits, at a glance:



IT Agility and Security: Eliminate the need to manually re-configure networking and security policies every time a workload is created, updated or moved across multiple cloud and on-premise environments.



Improved Visibility: Simplifying monitoring and reporting across all clouds and on-premise workloads, with a single pane of glass and consolidated source of truth.



Streamlined Operations: Reduce duplicate efforts by enabling simultaneous and automated networking configuration, maintenance and updates across heterogeneous environments.

When to implement multicloud networking?

Organizations must evaluate multicloud networking on a case by case basis. And while there is no universal formula for making the decision, there are a few factors to consider.

Generally speaking, it comes down to understanding the current and future complexity of your cloud environments; how these complexities will hamper the delivery of your business-critical applications; and how much your legacy networking approach is exposing your data to security, compliance and disaster recovery risks.

As a rule of thumb, the more heavily invested your business is in different cloud vendors, across disparate geographical environments, the easier it is to build the business case for multicloud networking. But to get a better idea of when to implement multicloud networking, consider the primary use cases below, then complete the self-assessment survey on the following page.

Key Use Cases:



Making Multicloud Work: Multicloud networking solutions, such as VMware's NSX Data Center and NSX Cloud, seamlessly extend on-premise data centers to other physical sites and to the cloud, enabling organizations to leverage scale, redundancy, and economics.

Organizations can also start to easily adopt and leverage specific cloud features from a variety of vendors, without the integration barriers or fear of lock in. For example, you might prefer Amazon's data processing, analytics and machine learning services, while hosting other applications or workloads in Azure. You also gain the agility needed to flexibly consume cloud services, on an "as needed" basis to optimize costs.

Dig Deeper: Read our blog post on Digital Transformation and Multicloud Networking to learn more about the challenges, and what organizations are doing to address them, in our new multicloud reality.

[READ NOW](#)

Key Use Cases: *(continued)*



Creating Workload Mobility: Multicloud networking makes moving workloads between sites seamless by extending the same virtualized network and security platform that IT organizations use on-premise into the cloud. This creates a single networking and security configuration for both private and public cloud resources. As a result, businesses are prepared as operations shift toward the public cloud, ensuring workloads and policies are mobile and consistent across different environments.



Strengthening Disaster Recovery: Multicloud networking gives the enterprise a consistent logical networking and security solution, across protected and recovery sites. This lowers the recovery time objective in the event of a disaster. With networks and security spanning consistently over multiple sites, applications can recover in the recovery site and retain their network (IP) and security configuration.



Enabling Micro-segmentation: Micro-segmentation is a method of creating secure zones in data centers and cloud deployments that allows companies to isolate workloads from one another and secure them individually. It's aimed at making network security more granular.

Dig deeper: Top 3 reasons to use microsegmentation

[READ THE BLOG POST NOW](#)

Self-Assessment Worksheet:

	1 POINT	3 POINTS	5 POINTS	SCORE
Are you managing networks across multiple data centers? (If so, how many)	No	Yes (between 2 and 4)	Yes (5 or more)	
Do you consume resources in multiple public clouds? (If so, how many?)	No	Yes (between 2 and 4)	Yes (5 or more)	
Are you able to apply networking and security policy consistently across data center and clouds?	Yes, easily	Yes, but with great effort	Not at all or impossible	
Are you able to seamlessly move workloads between data centers or clouds?	Yes, easily	Yes, but with great effort	Not at all or impossible	
Do you use proprietary hardware or expensive fiber to connect your data centers?	Not at all	Somewhat	Yes	
Is the network connectivity between data centers expensive?	Not at all	Somewhat	Very	
Do you have an automated and validated process to recover applications in a disaster?	Yes	Somewhat	Not at all	
TOTAL SCORE				

How did you do?

If you scored 21 points or more, considering multicloud networking is strongly recommended.

How do you do it?

Once you've identified the need for multicloud networking, now comes the most important part: action. At this stage, enterprises need to define the business case to align your strategies and secure investments. So how do you do it?

Application-led approach

At Softchoice, we believe the foundation of all successful multicloud networking initiatives begins with an application-led approach. Instead of getting buried in the weeds, making sense of multiple cloud vendor API's, service agreements and integration quandaries, start instead with a strategic picture of your business applications. This involves building up a robust profile of your applications, both current and future state, identifying dependencies, performance requirements, how they fit into your transformation goals, and security and availability needs.

Once complete, you will have the raw materials needed to plot out the ideal multicloud strategy aligned to business needs, determining which applications belong in which cloud, and what to keep on-premise. Only then will it be clear which multicloud networking solution will best serve your goals.

Partnering with Softchoice

Implementing a successful multicloud networking solution requires data-driven insights, dedicated resources and expertise. Softchoice can help simplify and optimize your path forward.

We have top-ranking expertise and accreditation with the largest vendors across the data center, network and cloud, including Azure, AWS, Google Cloud, VMware and more. Using an application-led approach, we leverage assessments and professional and managed services to ensure you:

- Target the right workloads for migration
- Choose the right clouds, architecture and procurement method
- Deliver the best workload placement and optimized cloud spend



Kickstart your multicloud networking journey

Contact us today to learn more about multicloud networking, or ask about our unique services, including:



Softchoice Technology Review:

Data Center and Cloud Networking: A holistic view of your VMware networking environment, giving you actionable insights to optimize spending, eliminate security risks and improve performance.

[DOWNLOAD DATA SHEET](#)



Softchoice Network Accelerator:

A functioning micro-segmentation and security solution proof of concept (POC) using VMware NSX, featuring: planning, rapid deployment, knowledge transfer and documented reference architecture.

[DOWNLOAD DATA SHEET](#)

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