

SIMPLIFYING THE JOURNEY TO MULTICLOUD WITH INTERCONNECTION

A CLOUD GATEWAY AND EQUINIX BRIEFING PAPER

JOINT BRIEFING PAPER





WHY READ THIS PAPER?

As enterprises seek to respond to the challenges and the opportunities presented by the digital economy, the move to multicloud architectures is gathering pace. But as firms make the transition, they're finding that multicloud is not the panacea for all ills. Indeed, it presents specific challenges of its own.

Interconnection has a vital role to play in overcoming these challenges and enabling you to realise the full potential of multicloud. It's one of the reasons why interconnection services are now growing at an exponential rate.

In this paper we look at:

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- ✓ The forces driving the move to multicloud

 - ✓ The problems you're likely to face as you make that journey

 - ✓ How interconnection solves the challenges associated with the move to multicloud

 - ✓ How Cloud Gateway helps you simplify your multicloud journey

 - ✓ Why Equinix is the world's leading interconnection provider
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of global GDP predicted to be digitised by 2021¹⁰



of global business leaders anticipating increased revenue growth from participation in ecosystems¹¹

18+

The number of major countries now blocking the transfer of certain data¹²



of enterprises in 2019 saying they have a multicloud strategy¹³

\$97.64bn

↑
\$44.6bn

The expected rise in value of the hybrid cloud market between 2018 and 2023¹⁴

MULTICLOUD MOMENTUM

IDC predicts that by 2021, at least 50% of global GDP will be digitised, with growth in every industry driven by digitally enhanced offerings, operations and relationships.¹ As enterprises seek to respond to the opportunities presented by the digital economy – and support new, real-time interactions between people, locations and data – traditional on-premise infrastructures are failing to deliver.

A number of factors are driving the move away from traditional infrastructures:

The importance of ecosystems

Businesses are becoming increasingly interconnected and need to connect to ever more diverse ecosystems of suppliers, partners and customers. By 2021, organisations using a mix of intermediaries will more than double, and active engagement with industries outside their native industry will nearly triple.²

Research from Accenture has shown that almost half of over 1,252 global business leaders are actively seeking ecosystems, with 66% of those surveyed believing participation will enable their business to innovate and 60% anticipating increased revenue growth.³

Supply chain digitisation

As the economy becomes increasingly digital, so are supply chains. Firms are now using innovative technology, such as Internet of Things (IoT) and Artificial Intelligence (AI), to integrate and automate their entire supply chains.

One survey of manufacturers found that new technology was expected to be the biggest driver of supply chain change, with data and analytics plus IoT topping the list.⁴

Moving IT closer to customers

Firms also need to reach customers in different ways and in different places, enabling seamless omni-channel interactions across globally-dispersed customer bases. Retail ecommerce sales, for example, are forecast to more than double globally between 2017 and 2021 – up from \$2.3 trillion to \$4.8 trillion.⁵ As a result, moving the location of IT services closer to customers is now increasingly important.

Restrictive regulations

At the same time, regulations governing where data is hosted and how it's managed are becoming more restrictive. More than 18 major countries now block the transfer of certain data.⁶

Centralised architectures are crumbling

Traditional, centralised architectures are unable to support the demands of digital business. The need to simultaneously become more agile and efficient, while supporting real-time interactions at scale, is driving many businesses to move towards a hybrid, cloud-based infrastructure strategy. In one survey, 61% of IT professionals cited speed and agility as the #1 goal for their companies migrating to the cloud.⁷

Different platforms for different gains

The need to support diverse workloads, and locate services closer to their users, means that enterprises increasingly need to utilise a range of public cloud platforms. Each one offers different technology and location advantages.

In 2019, 84% of enterprises surveyed said they have a multicloud strategy, with an average of 4.9 private and public clouds in use per organisation.⁸ Indeed, the hybrid cloud market is expected to more than double between 2018 and 2023 – up from \$44.6 billion in 2018 to \$97.64 billion in 2023.⁹



of networking professionals who said that increasing costs due to the growing traffic volume over their MPLS networks was one of the biggest challenges they faced ²⁰



of organisations identify security and compliance as a top challenge when migrating to the cloud²¹



of cybersecurity professionals who felt that traditional security tools are sufficient to manage security across the cloud²²



of cybersecurity professionals say they have extremely good visibility of critical business data²³

TRANSITION CHALLENGES

Performance and availability

Relying on the public internet to connect to cloud platforms inhibits performance and availability. But purely private networks don't provide a scalable solution.

Traditional hub and spoke WAN architectures quickly become overloaded. You're faced with either accepting the escalating costs of bandwidth upgrades, or suffering latency issues that degrade users' experiences.

In a survey of networking professionals, 53% said that increasing costs due to the growing traffic volume over their MPLS networks was one of the biggest challenges they faced.¹⁵

Security and compliance

With data and applications distributed across a mix of private infrastructure and multiple public cloud platforms, new security and compliance arise. The top two challenges identified by organisations when migrating to the cloud are security and compliance (62%) and preventing data loss (51%).¹⁶

You need to rethink your security model, ensuring you know:

- What tools to use
- How much you want to control yourself and to what extent you want to utilise third-party security services
- How to ensure that the security model of the public cloud providers is aligned with your own

One survey of cybersecurity professionals found that only 16% felt that traditional security tools are sufficient to manage security across the cloud.¹⁷ Gartner predicts that "through 2022, at least 95% of cloud security failures will be the customer's fault."¹⁸

Just maintaining visibility of critical business data – across both the increasingly diverse mix of private and public services and company and employee-owned devices – becomes an issue. In a study of more than 1,200 cybersecurity professionals, only 7% said they have extremely good visibility of critical business data, while 58% said they have only moderate or slight visibility.¹⁹

Added to which, staying compliant as data is distributed across multiple platforms can be particularly challenging.

Management complexity and cost

Operating a distributed architecture involving multiple cloud platforms introduces additional management complexity and cost.

A common scenario is for a business to build its management toolset around a particular vendor's technology, such as VMWare, Citrix, Microsoft or Oracle. As they move workloads and data to public cloud platforms, they need to employ new tools to get full visibility and control. They may also end up with applications that have different components running in different places, increasing the management challenge.

Retaining flexibility

As you transition more workloads and data to cloud platforms, you need to avoid lock-in. It is vital to retain the flexibility to accommodate changes dictated by technology, commercial or business pressures. Although public cloud platforms often operate a 'pay-as-you-go' model, there may still be contractual commitments which reduce flexibility.

Skills gaps

Few IT teams have experience of managing a major cloud migration. Recruiting people who can plan and manage your transition can be difficult.

Avoiding disruption

Your migration needs to be carefully planned to avoid application downtime and to maintain data integrity and security. For organisations with very big databases, the time taken to complete a migration can also be a major issue.



WHY INTERCONNECTION HAS THE ANSWERS

Interconnection is key to overcoming the challenges of migrating to a distributed, multicloud architecture, simplifying the journey and providing an essential building block of the global digital economy.

With interconnection, you can directly and securely connect an increasingly distributed global mix of employees, partners and customers – as well as your most valuable asset: your data.

Interconnection is now the cornerstone of integrating, securing and scaling digital business, with enterprise consumption of interconnection Bandwidth forecast to experience 7x growth by 2021.²⁴

The advantages of interconnection:

Private, secure and fast connections

Interconnection hubs, such as those provided by Equinix, offer private, secure and fast connections to multiple cloud providers. They are increasingly being utilised by businesses to simplify their journey to multicloud architectures. The fastest-growing category of interconnection is enterprises connecting to cloud and IT services providers, forecast to grow at 98% CAGR through to 2021.²⁵

Better quality, higher speeds

Eliminating dependency on the public internet, interconnection improves user experience and application performance by providing private, high-speed, low-latency connectivity to public cloud platforms. You can take advantage of direct, dedicated connections to public cloud platforms, with speeds up to 10Gb.

Utilising interconnection hubs to locate resources closer to the cloud platforms, rather than in centralised data centres, enables you to take advantage of very low-latency connectivity. Equinix, for example, offers direct connections to leading cloud providers of less than 5 milliseconds in many markets – ideal for mission-critical, low latency workloads.

Improved performance, reduced costs

By enabling private networks to be re-architected to meet the needs of distributed user communities, interconnection improves performance and reduces costs. More traffic can be kept in-region, and the distance between users and the services they need is shortened.

Interconnection hubs also optimise connectivity between your own private infrastructure hubs, providing flexible, scalable and efficient connections between applications and data repositories across different cities, countries and regions.

Minimised risk

Security and compliance risks are reduced by enabling security control points to be deployed within Interconnection hubs – closer to the clouds, customers, employees and partners that you need to connect to.

Taking an interconnection-first approach, combined with a zero-trust model, enables control of all business communication through traffic exchange points, with local private data repositories and multicloud application and services integration.

You can manage constant change in your multicloud architecture, while maintaining control at the zero-trust exchange points.

Simplified management

Provisioning and management are simplified with connectivity to multiple cloud providers that is controlled via a single interface and accessed via a single port.

Software-defined interconnection enables easy discovery of and connection to new cloud providers. You can easily tie in a new hosted application, or add a new cloud provider.

Easy workload and data movement

Easing migration challenges and reducing lock-in risk, interconnection hubs enable workloads and data to be quickly, securely and easily moved to, and between, cloud providers.

7x

The forecast growth rate by 2021 for enterprise consumption of Interconnection Bandwidth²⁶



The forecast growth in Interconnection Bandwidth consumption from enterprises connecting to cloud and IT services providers, the fastest growing category of interconnection²⁷

Cloud Gateway: unlocking the power of multicloud

Cloud Gateway PRISM is a hybrid-cloud connectivity PaaS, designed to make it simpler and easier for organisations to consume cloud services, and to migrate legacy applications to the cloud without being constrained by incumbent vendors or technology. Digital transformation initiatives are now the norm, as businesses recognise the need to be more responsive, flexible and cost conscious.

Cloud has been a key focal point for businesses undergoing significant change. PRISM was designed to give back control to the organisation, in the form of a simple platform that enables flexibility to migrate on-premise data centers, legacy applications and workloads to the cloud easily, without impacting users.

There are currently no other products in the marketplace that provide the full functionality that Cloud Gateway PRISM does. Some components can be found with alternative providers, but there are no other solutions that combine agnostic network connectivity, security and analytics within a single fully managed service.

Without Cloud Gateway, organisations need to provision, integrate and manage different individual solutions themselves. At a time when digital transformation and innovation is a critical directive, businesses cannot afford to spend precious resources on simply keeping the lights on.

Platform Equinix™: the world's leading interconnection platform

Equinix delivers the interconnection services that enterprises need to support their digital transformation.

The world's leading cloud interconnection platform, Platform Equinix™ has been used by thousands of enterprises to simplify their journey to multicloud. It delivers direct, secure, high-speed, low-latency connectivity to all of the world's major cloud providers, with 2,500+ cloud providers residing within Equinix facilities.

Equinix is the only data centre provider with private access to all major public cloud platforms, including Amazon Web Services, Google Cloud Platform, Microsoft Azure and Oracle Cloud. More than 200 data centres across five continents meet the colocation and connectivity needs of any enterprise.

Equinix Cloud Exchange (ECX) Fabric™ is a vital enabler of the journey to multicloud. ECX Fabric™ directly, securely and dynamically connects distributed infrastructure and digital ecosystems on Platform Equinix™ via global, software-defined interconnection.

Available across 30+ locations, ECX Fabric™ is designed for scalability, agility and connectivity over a self-service portal or API. Through a single port, you can discover and reach any cloud provider on demand, locally or across metros, to drive your digital future forward.

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