Six must-haves for application delivery in hybrid- and multi-cloud environments
Contents

Introduction .........................................................................................................3
End-to-end network visibility............................................................................4
Real-time analytics on network performance .................................................5
Automated application deployment .................................................................6
On-demand scaling ..........................................................................................7
Orchestration for the cloud ............................................................................7
Flexible license management ..........................................................................8
Introduction

As organizations continue down the path of digital transformation, the move to the cloud has become a given, and hybrid- and multi-cloud environments have become the solutions of choice. But while this brave, new multi-cloud world offers the portability, flexibility, and security enterprises desire, it has also made application delivery much more complicated.

To regain control of the applications at the heart of your business — and unlock the true economic benefits of the cloud — you need an application delivery solution that allows you to manage your entire environment through a single pane of glass and intelligently steer traffic for an optimal end user experience.

Read on to discover the top six requirements for facilitating a holistic approach to application delivery that extends seamlessly from your data center(s) out to the public cloud and across the WAN to your branch offices and remote sites.

84% of enterprises today have a multi-cloud strategy.

— 2019 RightScale State of the Cloud Report
End-to-end visibility into network and internet conditions

All of the scalability and flexibility enabled by the cloud are wasted if your applications fail to perform optimally or your data security is breached. To ensure application performance and security, you need a solution that integrates with a management platform so you can view and manage all of your application delivery controllers from a single console — whether the application is local or hosted in the cloud.

It’s vital to remember a hybrid approach to deployment means application delivery across the internet—and the internet is a dynamic place that depends on countless servers and content delivery networks. This leads to variability that can have a dramatic effect on user experience. Your enterprise needs a solution with deep visibility of internet conditions in order to deliver a great experience to end users.
Real-time analytics on network performance

With applications residing in both the local data center and the cloud—and users accessing them via whatever device they choose on the ever-changing internet—troubleshooting network performance is a huge challenge. To ensure application optimization and uptime, your app delivery solution needs real-time analytics providing actionable intelligence from across your hybrid or multi-cloud environment.

This provides alerts when networks across the globe have trouble reaching your content, no matter where it is. You can also set up automated traffic management to steer your content to high-performing data centers. All the while, your data is transformed into insights that you can apply to application performance management, troubleshooting, and security threat mitigation.

“Too often, network performance is presumed to be sufficient, unless something breaks. Enterprises have to know what their current use is and how well it’s performing. That can help them understand trends and plan capacity.”

— Eric Hanselman, Chief Analyst, 451 Research
Automated application deployment

As applications continue to move to the cloud, the automation of supporting services is becoming increasingly important. For this reason, you need to select a solution that integrates with a workflow management system to automate tasks such as lifecycle management and provisioning. By doing so, you will enable your IT team to work faster while eliminating errors and reducing costs.
4

On-demand scaling

Workloads are not constant. They can spike or plummet if it’s the end of the month, a special event, or a specific season. Your application delivery infrastructure needs to scale accordingly (based on user-defined conditions) so that you can apply cloud capacity where it’s most needed for your business.

To do this, your application delivery solution must have an auto-scaling capability that provides two-way signaling between the app or virtualization layer and the ADC.

At the same time, you can’t neglect a global server load balancing solution for scaling among your data centers. By load balancing your content delivery across multiple CDNs, you can protect your end users from service degradations and outages. Adopt a GSLB as a service solution so you can automatically direct users to alternate sites and CDNs when thresholds are reached.

“The beauty of the modern cloud and data center architecture is that you can create intelligent network and management policies that scale on-premises systems and into the cloud. This kind of seamless cloud delivery allows the user to be continuously productive.”

— DataCenter Knowledge.com

5

Orchestration for the cloud

As the data center continues to move towards a software-defined model, networking services need to be orchestrated so that your application infrastructure can be deployed on demand. To handle this task, you need a solution that’s API-driven so that it can integrate seamlessly with orchestration platforms and leverage their automation power inside and outside the enterprise perimeter.
Flexible license management

Because most application delivery solutions employ permanent static licenses that allow a specified throughput, some devices may be under-utilized or under-licensed.

To get the required flexibility, scalability, and resiliency from your hybrid or multi-cloud environment, you need an app delivery solution that allows the pooling of license and capacity. This allows you to easily transition capacity when needed.

In an IDC-conducted survey, organizations listed the following as the top five benefits of a holistic app delivery strategy for hybrid and multi-cloud environments:

- Increased IT efficiency
- Reduced risk
- Shift in IT focus to strategic initiatives
- Lower IT costs
- Improved customer engagement
Conclusion

The time is now for optimizing app delivery from the cloud

With an overwhelming majority of enterprises already re-architecting their network infrastructures to optimize application delivery from their hybrid- and multi-cloud environments, any organization that fails to do so risks getting left behind by the competition.

76% of organizations report that their network infrastructure is not satisfying their requirements for hybrid cloud application delivery.

82% of organizations say their network infrastructure hinders their ability to migrate applications to the cloud.

94% of organizations surveyed are already modifying, overhauling, or reassessing their network infrastructure to facilitate application delivery in hybrid- and multi-cloud environments.³
Visit citrix.com to learn how you can better manage your hybrid, multi-cloud environment with app delivery solutions like Citrix ADC, Citrix ITM, and Citrix ADM.

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