CITRIX®

The 6 Essential Requirements for Managing ADCs in Hybrid Cloud Environments

The Challenge of Delivering Applications Across Cloud Environments

Applications are crucial to the day-to-day operations of your organization, but in today's cloud world, they have become spread out across multiple data centers.

Having a local data center gives you full control over your infrastructure, but adding capacity takes massive amounts of time and money. Conversely, a cloud-based data center offers unlimited infrastructure on-demand on a pay-for-use basis, making it an attractive option. However, most organizations today can't just rely on one or the other. They need to run their applications in both local and cloud-based data centers to optimize their resources.

Application Delivery Controllers (ADCs) are essential to supporting this need because they ensure consistent performance and availability of applications. So as you move your applications to the cloud, your ADCs need to follow. This introduces complex management challenges.

To make the hybrid cloud model possible, you need a system to manage your ADC infrastructure, both in your local data center and in the cloud, to give your teams a complete view of their application environment.

"22% of surveyed customers considered hybrid and multi-cloud supportability for their application delivery infrastructure needs."

TechValidate survey of 437 Citrix NetScaler users
TVID: DD6-1C2-D67

22%
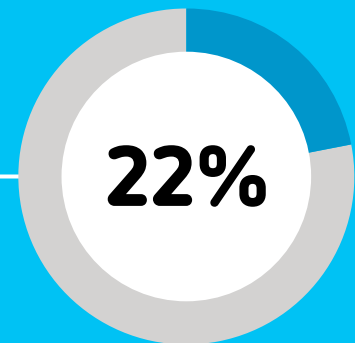
This is why adopting an ADC that integrates with a centralized management solution is paramount. It enables your IT teams to easily move applications around to better balance workloads, manage user requirements, improve performance, troubleshoot issues, and ensure that users' productivity is not impacted.

This eBook will detail the 6 essential requirements to look for in a centralized networking solution to empower your IT teams with these capabilities and flawlessly manage ADCs in hybrid cloud environments.
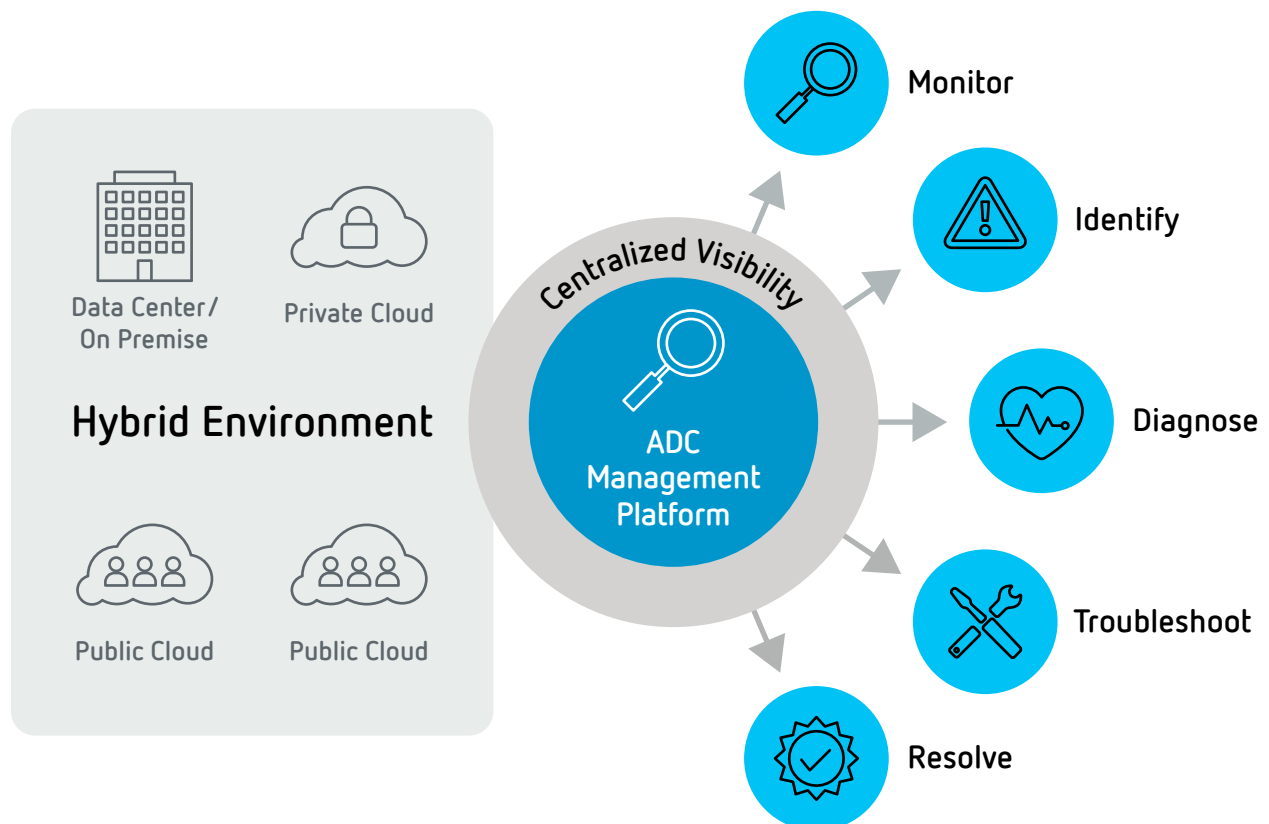
The 6 Essential Requirements For Managing ADCs in Hybrid Clouds

1   End-to-End Visibility of Your Network

To ensure application performance, IT teams need to be able to see all ADC devices from one console—whether the application is local or hosted in the cloud.

This means that your ADC needs to integrate with a management platform to help manage devices across the wide area network for an end-to-end view of your entire environment.

A holistic viewpoint enables IT to easily monitor, identify, diagnose, troubleshoot, and resolve issues quickly. This helps ensure optimal application performance, a positive user experience, and the highest levels of employee productivity and satisfaction.

Data Center/
On Premise

Private Cloud

Hybrid Environment

Public Cloud

Public Cloud

Centralized Visibility

ADC
Management
Platform

Monitor

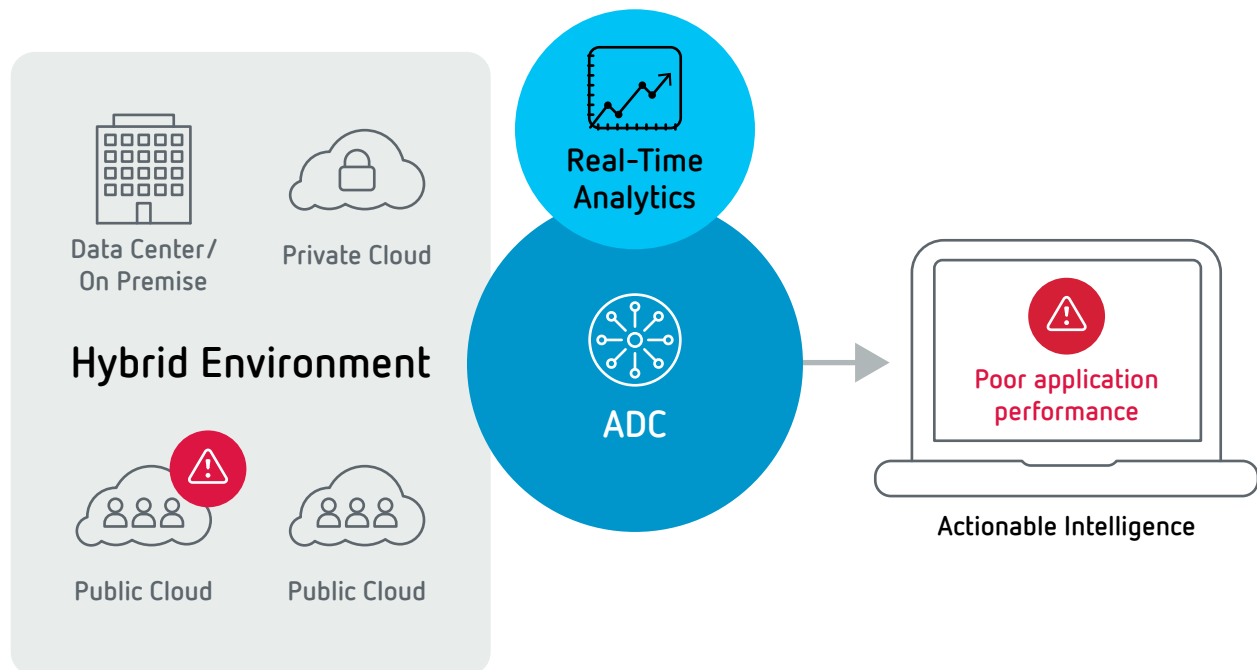Identify

Diagnose

Troubleshoot

Resolve

2 Real-Time Analytics for Network Performance

With applications in the local data center and in the cloud, troubleshooting can be a big challenge.

The only way to ensure application optimization and uptime from your ADC is integration with a real-time analytics platform that provides actionable intelligence from across the entire environment, so you can get immediate feedback in the form of alerts.

Real-Time
Analytics

Data Center/
On Premise

Private Cloud

Hybrid Environment

ADC

Poor application
performance

Public Cloud

Public Cloud

Actionable Intelligence

To support the vast amounts of data in a hybrid cloud model, this analytics platform needs to be supported by large-scale advanced logging and should provide application-specific data points and transactions that are presented to administrators with insights into performance and reliability.

3 Automated Deployment of Applications

Not long ago, IT configured devices using a command line interface on the individual box. However, today, organizations are moving away from manual configuration on devices.

IT is now adopting technology that allows for the automation of ordinary tasks across all devices at once, including lifecycle management, and provisioning. This lets them get work done faster and eliminates errors through scripted updates.

As applications continue to move to the cloud, the automation of supporting services is becoming increasingly important—placing emphasis on the need for you to select an ADC that integrates with a workflow management system to perform these duties and increase efficiency.

"By 2018, 60% of companies will rely on highly instrumented datacenters that use advanced automation to boost efficiency and tie datacenter and IT spend to business value."
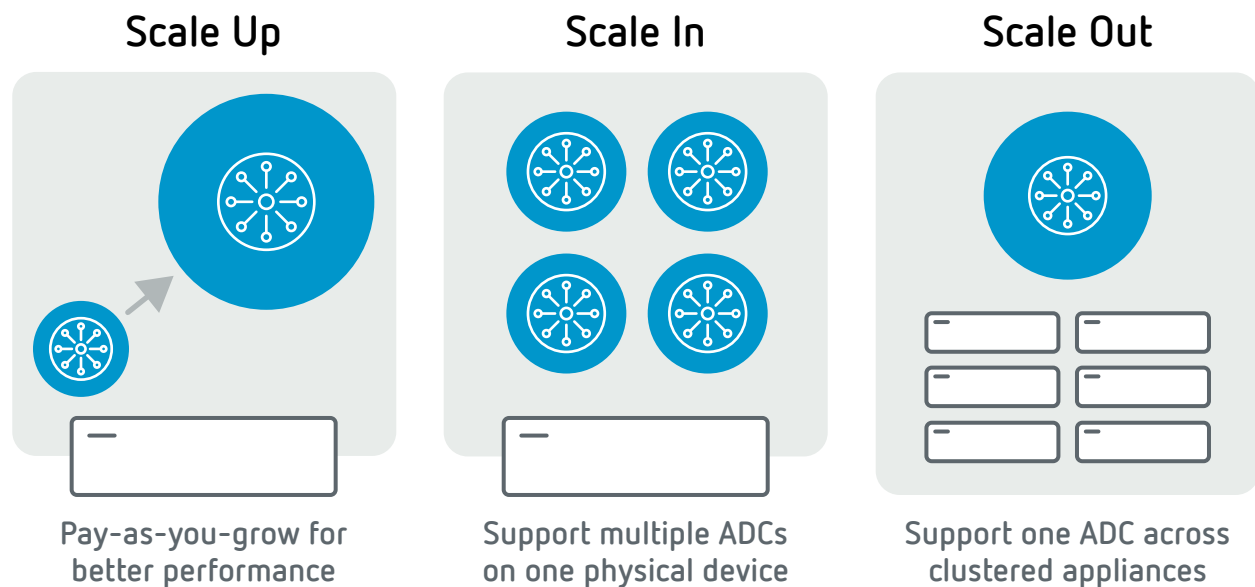
IDC

60%

4 Scalability on Demand

Workloads are not constant. They have their highs and lows. It might be the end of the month or a special event or seasonal.

Whatever the reason, your ADC infrastructure needs to be able to scale up and down on-demand to meet the changing needs of application workloads, and leverage cloud capacity effectively.

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

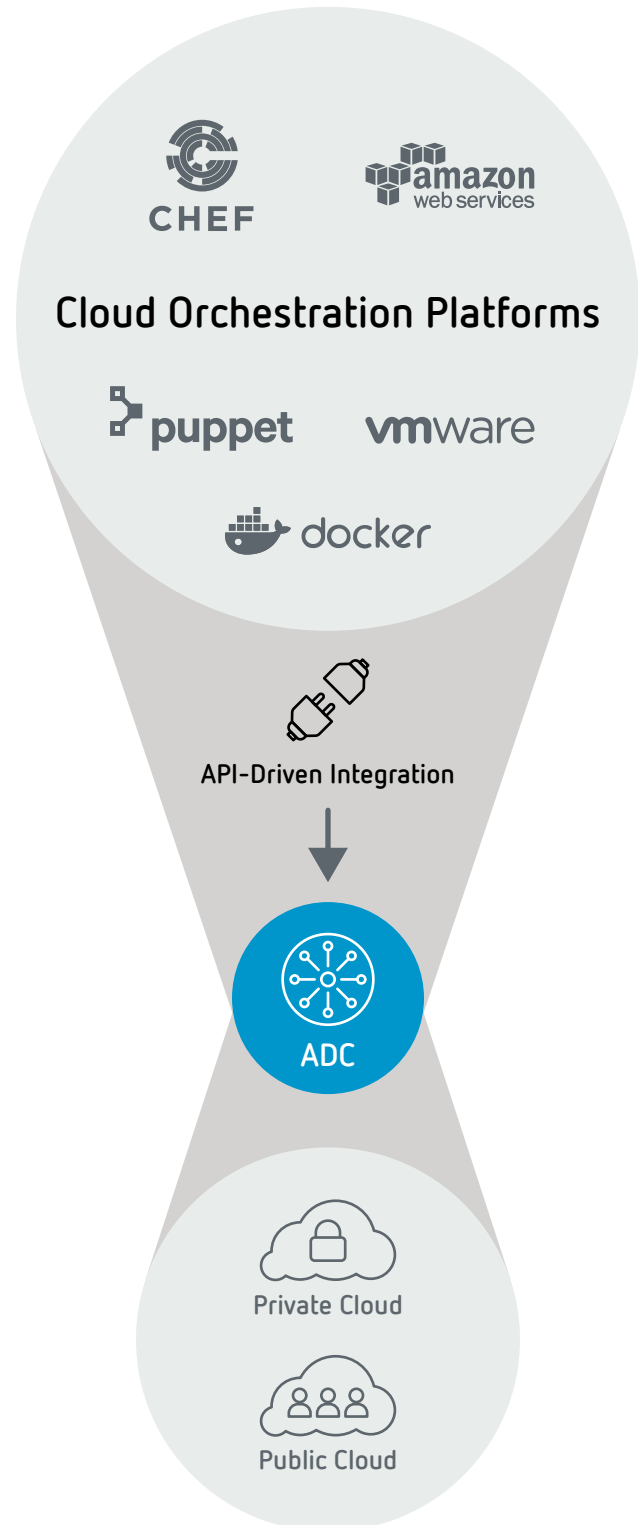| Scale Up	Scale In	Scale Out
Pay-as-you-grow for better performance	Support multiple ADCs on one physical device	Support one ADC across clustered appliances

5 Orchestration For the Cloud

As the data center evolves towards a software-defined model, orchestration of supporting networking services is essential for deploying infrastructure on-demand.

For this, your ADC needs seamless integration with the leading orchestration platforms used to deploy devices in the data center.

This requires your ADC to be API-driven in order to merge with orchestration platforms and leverage their automation power.

CHEF

amazon
web services

Cloud Orchestration Platforms

puppet   vmware

docker

API-Driven Integration

ADC

Private Cloud

Public Cloud

6 Flexible License Management

Most ADC devices are licensed with a permanent static license that allows a certain throughput. Often times, this leads to some devices being under-utilized while others are under-licensed.
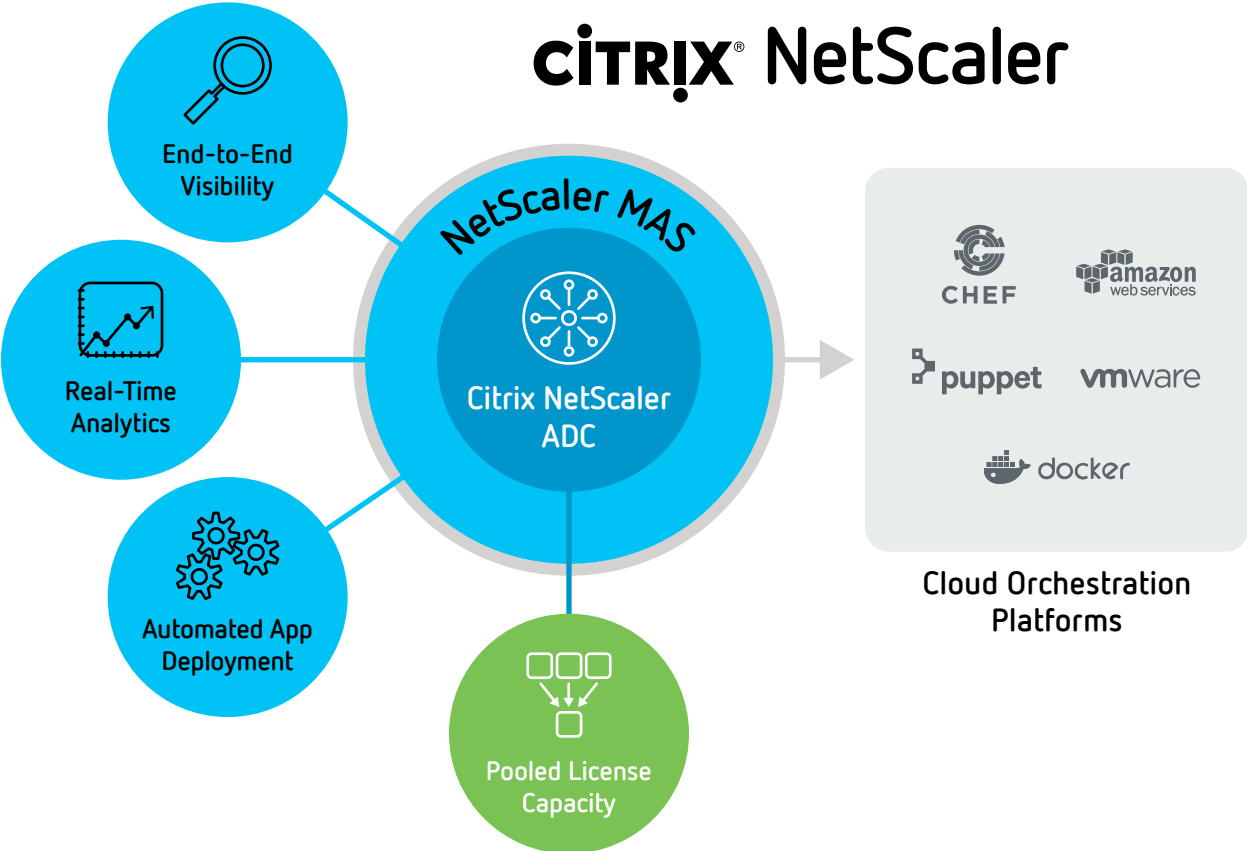
With the changing workloads in a hybrid cloud model, this can present a problem.

To get the best use of device licenses, you need an ADC solution that allows you to combine them as a pool of capacity, and easily apply license capacity to an under-utilized device whether it is in the local data center or in the cloud.

ADC

Pooled Capacity Licenses

50 Gbps

On Premise

100 Gbps

150 Gbps

Cloud

Portability
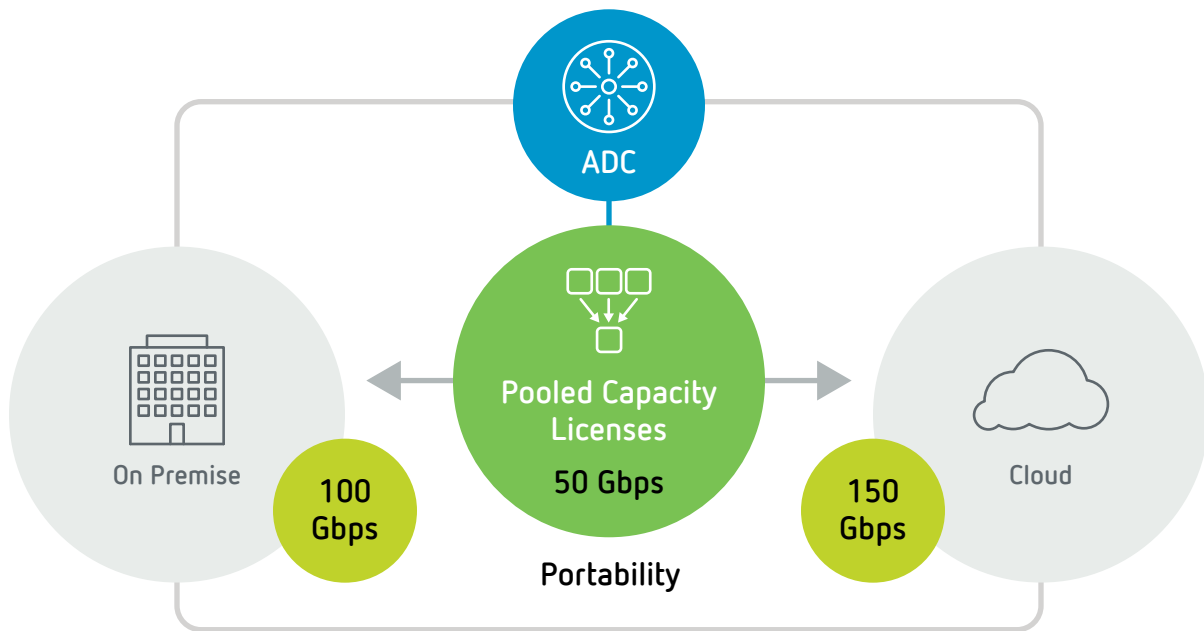
Meet Citrix NetScaler Management & Analytics System (MAS): The Premiere Solution for Managing ADCs in Hybrid Cloud Environments

Citrix NetScaler Management and Analytics System (MAS) is a centralized network management, analytics, and orchestration solution that provides a single platform, where administrators can view, automate, and manage network services for scale-out application architectures.

CITRIX® NetScaler

End-to-End Visibility

Real-Time Analytics

Automated App Deployment

NetScaler MAS

Citrix NetScaler ADC

Pooled License Capacity

CHEF

amazon web services

puppet

vmware

docker

Cloud Orchestration Platforms

Whether you need to effectively troubleshoot your ADCs, manage application services policies, or move them between development and production environments, you'll be able to manage all ADC devices on any platform or in any environment—including hybrid clouds.

NetScaler MAS also provides integration with external orchestration systems, private cloud orchestration systems, and container management systems.

NetScaler MAS provides real-time analytics to help administrators identify and address application performance and security issues across the infrastructure, and its automated alerts enable IT to see when and where a problem arises so you can take immediate action to optimize application performance. It also features large-scale advanced logging to ensure that you can gather and analyze information across your entire ecosystem for end-to-end insight.

Additionally, when NetScaler MAS is implemented in tandem with NetScaler ADCs' pooled license capabilities, you're free to move licenses wherever and whenever they're needed, for greater efficiency and cost savings.

Citrix NetScaler MAS gives you the centralized network management, flexibility, and insight you need, so you can say yes to the future of business and embrace ADC management in hybrid cloud environments.

Check out the Citrix NetScaler MAS product page to learn more

www.citrix.com/products/netscaler-management-and-analytics-system

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