citrix™

The definitive guide for choosing
the right application delivery controller

It used to be that you would build out your datacenter with all the right considerations in place, purchasing equipment that was sized to meet the needs of your organization for today and the near-term future.

Change used to be merely planning for capacity upgrades or network expansion, or migrating to the latest application version—or more simply put: things we could measure, control, and manage.

With the advent of the cloud, the rise in cyber-based threats, and the need to do more, faster, it's harder to plan for change while maximizing existing IT infrastructure investments.

This e-book will focus on things you should consider when deciding on an ADC solution that can not only survive these changes, but help create opportunities for innovation.

Digital transformation's impact on the ADC landscape

Digital transformation in the enterprise has historically led to initiatives such as bring your own device (BYOD), mobility, and collaborative mobile workspaces, but things are changing.

The new pillars in an enterprise digital transformation strategy include leverage of cloud and new application architectures to drive profitability while reducing security vulnerabilities and overall technical debt. We're now seeing several large enterprise organizations begin to make this new wave of digital transformation a critical strategy to ensure profitability and success.

As applications play a critical role in this endeavor, it's important to understand how these drivers should impact your selection of an ADC solution that embraces these new pillars of digital transformation and creates opportunities for innovation in the face of change.

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Between 2016 and 2021, ING intends to spend close to $900 million to boost innovation, and become more efficient, while reducing costs for years to come. Much of ING's plans focus on digital transformation to enable customers to do more business via digital devices."

Eugene Sefanov
ING Endeavors for Digital Transformation

Things to consider when choosing an ADC

To meet the needs of digital transformation within your organization, make sure to select an ADC that:

1. Is hybrid-cloud enabled

2. Supports microservices-based apps

3. Features comprehensive app security

4. Is software-based

1. Your ADC should help you harness the power of the cloud

Every enterprise needs to have a cloud strategy, and it can no longer be one of exclusion.

The cloud offers compelling economic advantages for handling either unplanned capacity or short-lived resource demands over building and sourcing these in-house. However, after many organizations failed to emulate the scale and elasticity of the cloud in their private cloud endeavors, they've now defaulted to a "best of both" strategy, and hybrid is their go-to approach for harnessing the power of the cloud.

Today's most innovative organizations are enthusiastic adopters of hybrid cloud. **Companies with significant workloads in hybrid cloud have been able to implement digital transformation initiatives faster and see revenue growth double.**

Hybrid cloud presents increasing challenges of complexity for the enterprise in managing multiple workloads across a diverse ecosystem of platforms. This means your ADC needs to easily adapt across local and cloud-hosted domains for true end-to-end application delivery and maximum leverage. Selecting an ADC that can seamlessly be managed and deployed across all cloud environments creates flexibility and scalability to support changing network demands with efficiency.
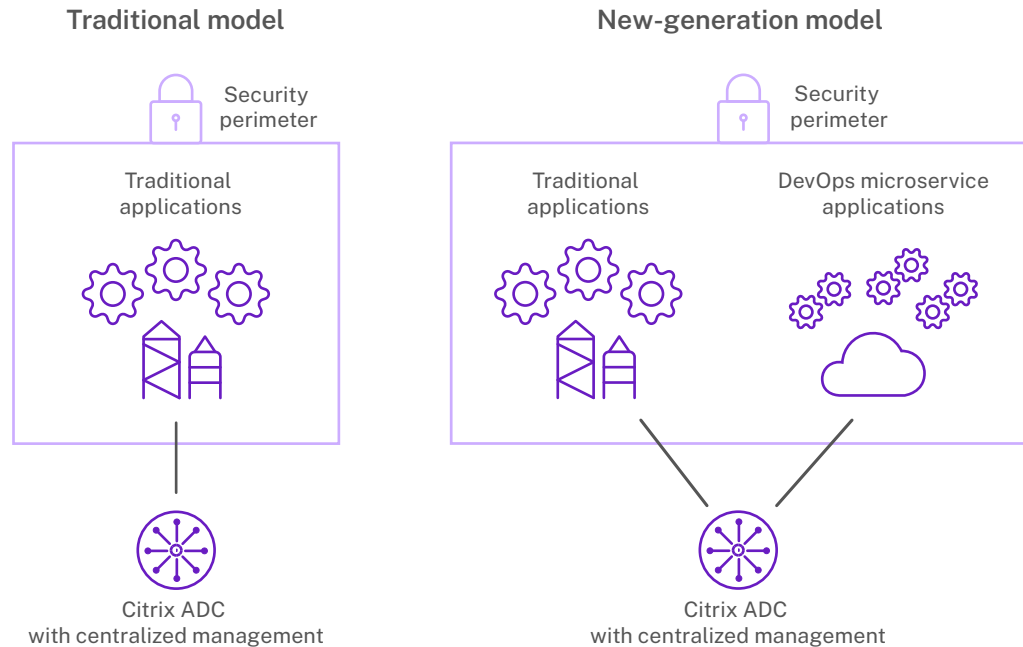
2. Your ADC should support new-generation microservice application architectures

The cloud is now playing a role in how applications are architected and can be held largely responsible for the app evolution that is currently underway. This new generation of applications are developed and tested in the cloud—and often reside there permanently.

In addition, applications are being built by leveraging massive service-oriented architectures that bring a high level of resiliency and scalability. These applications are being deployed in containers and with microservices. They're even impacting traditional legacy application deployments, where IT is seeking to emulate the operational advantages of their web development peers and incorporating procedures for infrastructure automation.

These agile development practices have been the primary catalyst driving change in enterprise IT operations and infrastructure decisions, leading to the emergence of DevOps practices in several large IT organizations.

The key to delivering these new-generation application architectures is an ADC that can span physical, virtual, and containerized form factors. Deploying the same ADC across all these environments provides a simplified platform for manageability, security, and visibility, regardless of the inherent application architectures.

Traditional model

Security perimeter

Traditional applications

Citrix ADC
with centralized management

New-generation model

Security perimeter

Traditional applications

DevOps microservice applications

Citrix ADC
with centralized management

3. Your ADC should provide protection against the new wave of security threats

Security is constantly evolving, as are the threats that an enterprise business faces. Headlines of ransomware and cyberattacks are a CSO's worst nightmare. With new app deployment topologies come new potential vulnerabilities that the enterprise needs to guard against.

These attacks are becoming more sophisticated and often are motivated by commercial gains to supply personal data to cybercriminals.

This has forced new standards for encryption. Protocols for encryption are becoming even more complex in an attempt to outsmart cybercriminals.

You must now incorporate these new standards of protection to secure your environments and prepare for emerging security threats. This makes it important to choose an ADC that includes built-in security features such as a web application firewall, DDoS protection, and a hybrid approach to supporting encryption-leveraging hardware and software.

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We've observed that organizations have hundreds, if not thousands, of consumer-facing web applications, and each of these web apps has any-where from five to 32 vulnerabilities. This means that there are thousands of vulnerabilities across the average organization's web applications."

Tamir Hardof
Chief Marketing Officer, WhiteHat Security

4. Your ADC should be software-based and provide flexibility to adapt to constant change

Hybrid cloud, emerging security concerns, and evolving application architectures are but a few of the trends that are impacting the enterprise, and collectively represent an industry in transition. These factors have led to an upheaval in the datacenter that is challenging standard operational procedures.

Change is inevitable, but how do you manage these changes and stay in control? Building your environments to meet these evolving trends is the destination, but most organizations see a chasm of uncertainty in their quest to meet this destination.

The main reason these changes are so challenging is the sheer pace of change, which is embattling IT to stay ahead of the curve. ADC investments involve capital expenditures, knowledge, training, and customizations to meet the requirements of your business. But today, changes are occurring so rapidly that they rarely provide an opportunity for your investments to yield their promised return.

The only way to ensure that what you buy today will be relevant two, three, or five years down the road when the next major shift in IT occurs, is to invest in an ADC that unlocks software from hardware. An ADC that is built with a software-first approach gives you the freedom and flexibility you need, no matter what the future brings. Software-first means you can deploy on any hypervisor or any cloud and in any form factor—seamlessly. One code base. One feature set. One ADC.

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We need to apply everything we've learned about navigating change and uncertainty, and step beyond the binary success/failure conceptual model of adoption."

The New Stack
The Docker and Container Ecosystem

Meet Citrix ADC: The redefined ADC for the digital transformation era
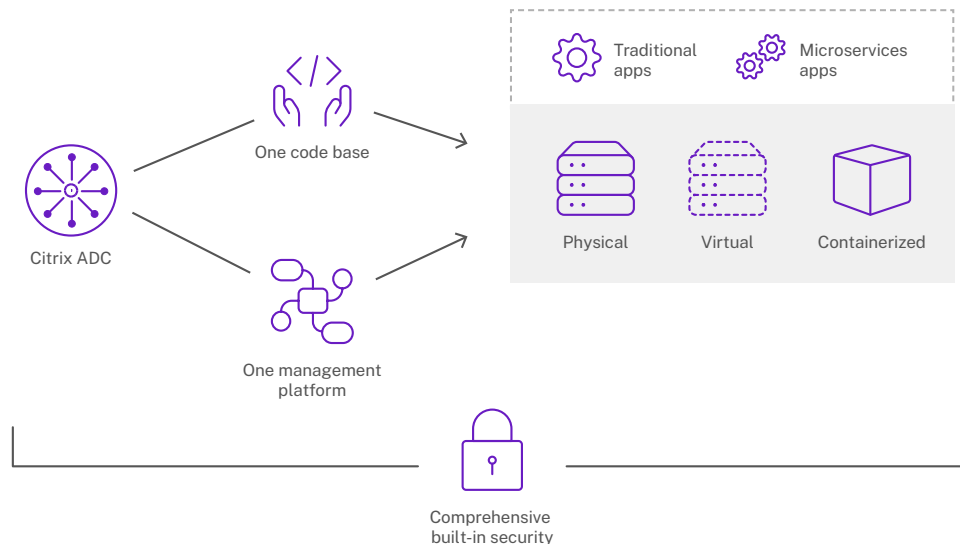
Citrix ADC is an application delivery controller with a software-centric architecture that makes it the best choice for ADCs to be deployed and managed in new-generation datacenters spanning private, hybrid, and multi-cloud architectures.

Citrix ADC employs a single code base across multiple form factors, including physical, virtual and containerized. This single code base increases compatibility across instances and minimizes feature disparity between form factors.

Additionally, Citrix ADC instances and services can be managed and orchestrated via a single portal—regardless of whether these instances are deployed on premises or in multiple clouds.

It's also the first ADC to have a container-based form factor that can be managed and automated in unison with all other form factors through a single management platform to support DevOps microservice application delivery.

Citrix ADC application security features an industry-leading web application firewall, comprehensive DDoS protection, and hybrid support for modern encryption requirements. So, no matter where you house your apps—or where you move them to—security is built in.

Citrix ADC

One code base

One management platform

Traditional apps

Microservices apps

Physical   Virtual   Containerized

Comprehensive built-in security

Citrix ADC is the only solution that gives you the flexibility you need to embrace digital transformation with a software-first approach.

To learn more about Citrix ADC, visit citrix.com/adc.

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