How to get and maintain control of your microservices

Leveraging a hybrid application delivery strategy to address application disruption
Introduction

Unlike traditional application deployment, a microservice architecture enables developers to implement smaller, deployable units, push updates faster, and deliver autonomous, self-contained units in less time. While this is essential to agile application development and deployment, it also results in more complexity since the network must continue to support legacy applications.

To bridge the gap between traditional and microservices architectures, networking leaders must deliver an application delivery controller (ADC) platform that gives DevOps the agility they need without sacrificing network security, visibility, and control. Failure to deliver this solution often results in DevOps teams engaging in Shadow IT — spinning up their own cloud environments to develop, test, and deploy apps.

This eBook discusses how a hybrid application delivery system provides DevOps teams with the agility they demand while giving networking teams the control and centralized management they need.
Gaining control of your microservices with a hybrid application delivery infrastructure

In the past, traditional application delivery was very simple. A few ADCs were placed in front of application servers to accommodate north-south delivery. The applications then traveled to the user and back to the server.

With microservices application delivery, ADCs are placed in a container and are deployed per microservice. Thousands of ADCs might be deployed to support east-west (microservices to database) traffic within the application.
Today’s networking leaders must facilitate digital transformation while ensuring they have complete visibility and control over both types of application architectures. By adopting hybrid delivery infrastructures, they can bridge the gap between these two environments to ensure optimization and communication between apps and across clouds. It also provides DevOps with the agility they need while laying the foundation for future innovations.

Hybrid application delivery infrastructures also enable the following:

- The adoption of container technology for microservices applications, and anagement systems for rapid iterative development and deployment.
- Development of dynamic applications that enable digital engagement and interaction with customers and stakeholders.

79% of organizations plan to address application disruption via a unified application delivery strategy.²
Redefining the ADC for hybrid application delivery

In the past, an enterprise’s ADCs and applications resided in their data center. In today’s digital world, applications live everywhere, including in the cloud and in DevOps environments. Networking leaders need an ADC that is purpose-built to support digital transformation and agile development.

Three key elements to look for in an ADC:

1. A single platform for traditional and DevOps application delivery
   A software-based ADC can be consumed in a number of form factors — including physical, virtual, bare-metal, containerized, multi-tenant, and asa-service — with consistent features across all platforms. Look for a single API and management platform that provides interoperability with any orchestration platform.

2. A centralized management system
   The management system should allow IT and networking teams to configure, monitor, and analyze the application delivery infrastructure across the entire environment from a single, unified console. It should also provide real-time analytics to address application performance and security issues.

3. Integration with automation and orchestration systems
   The ADC needs to integrate with cloud orchestration systems for virtualized environments, and container orchestration and management systems for microservices applications. This enables your ADC to support new application instances that are dynamically deployed — regardless of the environment.
Assessing your network for hybrid and multi-cloud application delivery

Assessing your current infrastructure by answering these five questions will help you determine the best path for modernizing your infrastructure.

1. Can you manage and update all of your application delivery components from a single console?

2. Are you able to deploy both physical and virtual appliances?

3. Does your licensing allow you to transition from appliances to virtual-based implementations?

4. Are you able to visualize and manage both your north/south and east/west traffic in the same user interface and code-based platform?

5. Do your developers have the ability to implement or integrate the delivery solution through APIs to accelerate agile development?
Your journey towards a modern, secure enterprise begins with a software-centric ADC that can meet the demands of an increasingly dynamic and distributed world. Citrix ADC helps eliminate network complexity by providing an agile, secure, and reliable application delivery solution across both traditional and DevOps microservices environments. Citrix ADC simplifies deployment across any form factor, any hypervisor, any cloud, while providing deep visibility for an exceptional application experience.

Visit Citrix.com/ADC to learn more

Sources:
1. 2017 Citrix and IDC Survey
2. 2016 IDC Multi-cloud Application Delivery Survey