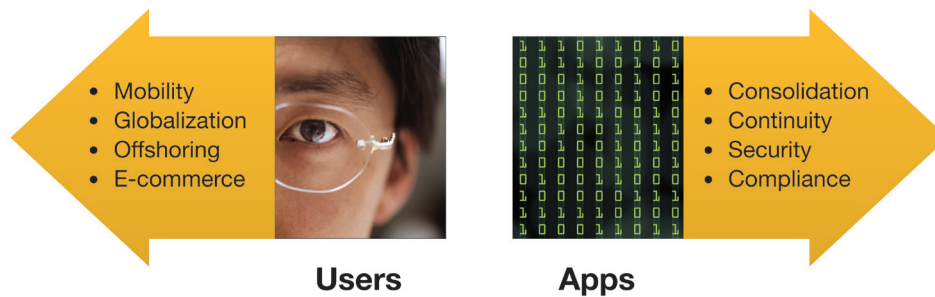


WHY  
APPLICATION  
DELIVERY  
IS THE NEXT  
BIG  
THING





Market trends in recent years have been pulling applications and users further apart. Without a robust application delivery infrastructure in place, IT can easily become a roadblock to business objectives rather than part of the solution.

Does your company have a Vice President of Application Delivery? If asked who your strategic vendor is for application delivery infrastructure, would you have an answer? If your response to questions like these is “no,” chances are you’ll soon be changing your tune.

In many ways, applications represent the closest intersection between IT and business. Whether large ERP solutions or custom web apps, email or e-commerce, client-server applications or SOA, your success in IT today depends on ensuring that these applications meet their business goals. Unfortunately, trends such as mobility, globalization, offshoring, and e-commerce are moving users further away from headquarters; while issues like datacenter consolidation, security, and regulatory compliance are making applications less accessible to users.

These changes are rapidly pushing the topic of application delivery into the forefront, forcing IT executives to spend more time focusing on how their infrastructure enables them to get mission-critical business applications from their source in the corporate datacenter out to users in a way that lowers cost, reduces risk, and increases the agility of IT to keep pace with business requirements in an increasingly dynamic world. And all the while, shrinking IT budget growth means your margin for error is razor thin.

This sharpened focus has made one fact increasingly clear. Traditional networking, security, and management solutions alone cannot solve this problem. If the infrastructure you rely on to deliver business applications to end-users wasn’t designed with modern application realities in mind, you end up massively over-provisioning, buying too much bandwidth, adding too many servers, and refreshing PCs on an increasingly short lifecycle just to keep up with growing application requirements.

What’s needed is an end-to-end application delivery strategy – a strategy that includes infrastructure solutions deployed along the line-of-sight between datacenters and end-users – a strategy that makes it easy to deliver any application to any user with the best performance, highest security, and lowest cost. A strategy featuring products that work great with your existing infrastructure, and even better when deployed together. Starting from the datacenter and working out toward the end-user, Citrix believes there are four critical best practice objectives to keep in mind.

## CONTROL APPLICATIONS AT THEIR SOURCE

An end-to-end application delivery strategy should start with infrastructure products that are deployed in the datacenter, directly in front of applications – products that control the initial delivery of these applications as close as possible to their source.

To ensure the best performance, security, and TCO of web applications, you need application delivery controllers designed from the ground up with web technologies in mind. Web protocols are extremely verbose and tend to carry far richer content than client-server applications, creating massive increases in the volume of application traffic. Web applications are also far easier to exploit, opening up many new data security risks. The combination of these factors can dramatically slow down application performance, drive up the cost of servers and bandwidth, and increase data security risks. To address the challenges of web application delivery, companies need to look to integrated application networking products that go beyond traditional load balancing; products that optimize application traffic over the network by incorporating advanced technologies like compression, caching, and security. The Citrix NetScaler product line is a good example of a solution in this area.

When it comes to Windows applications, the issues are a bit different. The traditional approach is to install each unique client on every end user’s PC, then attempt to manage, upgrade, patch, and maintain them at the endpoints. This model quickly creates huge problems with cost and complexity that grow exponentially as applications and users are added or changed in any way. A far better solution is to install all clients one time in the datacenter and virtualize their delivery over the network so that the only elements crossing the wire are pixels, mouse movements, and keystrokes. This approach dramatically improves the cost, simplicity, and security of managing Windows applications without compromising the end-user experience in any way. An adjacent technology known as application streaming can be used in a similar fashion to stream Windows desktop applications to end-users on-demand, similar to how you might stream an audio or video file. The Citrix Presentation Server product line is a good example of a solution that uses virtualization and streaming technologies to deliver Windows applications.

A well-designed application delivery strategy should also incorporate Windows desktops, as they represent the primary operating environment through which employees access their applications. Relying on traditional technologies and approaches to provision and manage Windows desktops can be complex, costly, and challenging. It can also expose the enterprise to significant security risks as sensitive data is scattered across a wide range of end-user PCs. Major technical advances in recent years have made it possible for the first time to deliver highly dynamic virtual desktops over the network to office workers with zero compromise in end-user experience. This model can dramatically improve the economics, simplicity, and security of traditional desktop management. The Citrix Desktop Server is one example of a solution designed to address this challenge.

### SECURE ACCESS TO APPLICATIONS

A second key consideration in developing a successful application delivery strategy is making it easy for users to securely access their applications from any location. Traditional secure access solutions such as virtual private networks (VPNs) are focused primarily on access to networks. Next generation SSL VPNs are typically much easier to install and are specifically designed to provide application-layer access to the exact application resources each user needs. Citrix Access Gateway is a good example of a product in this category. When evaluating secure access solutions as part of an end-to-end application delivery strategy, IT executives should look for solutions that go beyond simple network access, giving IT control over which actions a user can perform within each application based on his or her unique access scenario. A user accessing a corporate application from an office computer, for example, might be able to use all application functions, while that same user connecting in from an untrusted external location might be able to view application data, but not save or print.

### OPTIMIZE APPLICATIONS OVER THE WIDE AREA NETWORK

As a result of trends like user mobility, globalization, and outsourcing, more than half of all employees at mid to large sized enterprises now access all of their applications from branch offices. Traditional networks were never designed to deliver the kind of application traffic they are expected to handle today, especially as companies consolidate datacenters and start pushing applications like voice and video over the network. WAN optimization products address this problem by automatically optimizing all application traffic over the wide area network, an approach that can dramatically improve application performance and reduce bandwidth requirements by as much as 75 percent. When evaluating WAN optimization solutions, companies should place a high premium on products that are entirely transparent, can be easily dropped into an existing environment without changing the network or applications, and require no new configuration when new applications are rolled out. The Citrix WANScaler product line is a good example of a solution in this space.

### MONITOR THE END-USER EXPERIENCE

The success of any application delivery strategy also rests on the ability of IT to truly monitor the experience of end users, especially with regards to application performance. Giving IT visibility into exactly what the application experience feels like for end-users makes it much easier to maintain service level agreements with business stakeholders, spot bottlenecks before they become issues, and quickly diagnose problems when they do occur. Citrix EdgeSight solution is a good example of a product in this category.

Unlike a few short years ago, businesses today run on applications. In an increasingly volatile world where you face a dizzying array of changes to applications, users, and business climates, making application delivery a strategic imperative is no longer an option. If you keep these four best practice objectives in mind, chances are, you will be well positioned for success.



Citrix Systems is the global leader and the most trusted name in application delivery infrastructure. More than 180,000 organizations worldwide rely on Citrix to deliver any application to any user with the best performance, highest security, and lowest cost. Citrix customers include 100 percent of the Fortune 100 and 98 percent of the Fortune Global 500, as well as hundreds of thousands of small businesses and prosumers. Citrix has offices in 22 countries worldwide and is represented by 6,200 channel and alliance partners in more than 100 countries.