Deliver financial services applications with scalable, low-cost networking for a great user experience that ensures worker productivity and responsive customer service.

Empower financial services professionals with reliable application availability, security and performance on any device, in any remote or branch location.
Business agility is mission-critical for financial services organizations. To compete effectively, banks, insurance providers, brokerages and investment firms must be able to open and scale locations quickly across the globe, enable new customer service models, and allow flexible workstyles for a dispersed workforce. These business requirements pose a myriad of challenges for IT. A more dispersed and dynamic environment calls for a more efficient, scalable and cost-effective approach to networking management and operations. Employees must be provided with secure yet highly available network access to critical apps from any location, on any device, with unparalleled reliability. IT must achieve all this while supporting regulatory compliance and ensuring business continuity.

Citrix networking solutions provide the secure, flexible, reliable and cost-effective network environment that financial services organizations need today. The solution enables customers to:

• Provide secure access to financial services applications from any location, on any device, over any network, with a high-quality user experience
• Improve performance and availability for mission-critical applications—even in the event of a sudden surge in demand or a planned or unplanned business interruption
• Deploy low-cost connectivity to branch locations while maintaining MLPS-level quality and reliability
• Gain end-to-end visibility into application traffic and network issues to reduce downtime and improve productivity

The mandate for financial services IT today

Financial industry pressures call for IT to do more with less. Business and market dynamics place a premium on the ability to adapt to organizational changes such as M&A, add new locations and scale existing sites while maintaining uninterrupted productivity and customer service. Mobility has changed expectations of both customers and employees—IT now needs to deliver apps on more kinds of devices, in more places, to support roaming customer service and workforce flexibility, all without compromising performance and security.

Virtualization provides a foundation and framework to address these needs, allowing virtualized apps and desktops to be accessed anywhere, on any device, complemented with enterprise mobility management (EMM) and enterprise file sync and sharing (EFSS) for complete productivity. IT centralization eliminates the cost and complexity of maintaining multiple redundant datacenters across locations, simplifies management and operations, and reduces real estate demands. Centralized access control policies and encryption ensure app and data security wherever and however people work.
To leverage the full benefits of this approach, IT also needs a way to deliver apps and data to any location securely, with high performance, availability and a great user experience, without the need to invest in costly network or server upgrades. This calls for a delivery platform designed for:

- **Optimized, scalable, low-cost networking** to enable the organization to quickly stand up branch or seasonal offices, or connect to new offices after M&A, and provide secure access to all the apps and data employees rely on. This includes the ability to add bandwidth-intensive applications without stressing the network or requiring costly increase in dedicated bandwidth or servers to ensure uptime.

- **A high-quality user experience** to enable optimal productivity and satisfaction for both employees and customers. Low path latency is essential to ensure high performance for virtual desktops and apps, and mission-critical apps should have prioritized quality of service (QoS) in the event of network congestion. Secure remote access should be simple and consistent whether apps are deployed in the datacenter or cloud, across all of the devices people use.

- **Business continuity** to maintain zero downtime during inevitable disruptions. IT needs a way to load-balance web apps, simplify backup and recovery processes across multiple branch IT and remote deployments, and avoid the complexity and cost of multiple redundant datacenters, apps, data and systems.

- **Secure access to all apps and data** to protect sensitive company and customer information, manage risk and maintain regulatory compliance while ensuring that people can access all the resources their work requires. Comprehensive security must include protection from cyberattacks for web apps, as well as safeguards for sensitive data accessed on personal and insecure devices.

**Ensuring an optimal experience for financial services apps in any scenario**

Citrix NetScaler® provides comprehensive networking platforms to secure and optimize workspace delivery from enterprise datacenters and cloud platforms while providing compliance, high availability and simplified access. Citrix networking solutions lower the cost of financial services application delivery over all types of networks, for all users, without sacrificing visibility. IT can use a single solution to provide secure remote access for all types of apps—custom, legacy, Citrix virtual, Windows, web and SaaS—for loan and insurance applications, banking platforms, trading platforms, financial messaging, business productivity and more. To ensure a consistent user experience, Citrix networking solutions let IT proactively manage application health and performance with end-to-end application and network-level visibility from a single console. In this way, IT can provide the best experience for financial services professionals whether they are in a branch office, at headquarters, working at home or offshore, or while roaming on mobile devices.

NetScaler includes comprehensive networking technologies to meet the needs of financial services organizations:

**NetScaler ADC™**

NetScaler ADC is an industry-leading application delivery controller that sits in front of application or web servers in corporate datacenters and cloud environments. It improves the resiliency, performance and security of enterprise applications, SaaS applications and virtualized applications such as Citrix XenApp®, Citrix XenDesktop® and Citrix XenMobile®. Form factors include hardware-based appliances for the datacenter as well as cloud-ready virtual appliances for datacenters and cloud environments such as Amazon Web Services (AWS) and Microsoft Azure.
NetScaler ADC optimizes, secures and controls the delivery of all enterprise and cloud services. IT can accelerate application and content delivery across any network, including branch and mobile users, to any app, on any device. Server load balancing increases application resiliency and performance by distributing traffic evenly across clusters of servers, monitoring the health of servers and providing seamless failover when a server goes down. Application performance is improved by compressing and caching network traffic and offloading tasks from servers and network devices.

To improve security and support compliance, NetScaler ADC provides secure access from any device for applications, data and web properties like online banking sites with end-to-end SSL encryption, integrated application firewall. Unified control and compliance across web, desktops, mobile and SaaS services enables a holistic and comprehensive approach to risk management. NetScaler ADC improves security through measures including:

- Managing advanced authentication techniques during logins
- Detecting and blocking SQL injection, cross-site scripting and other network-based attacks
- Implementing rate-limiting measures to protect servers against distributed denial of service (DDoS) attacks.

As financial services IT strategies evolve, NetScaler ADC makes it possible to transform traditional networks to adaptive and responsive cloud networks for rapid, frictionless scalability up, in, out and on-demand. Global server load balancing allows traffic to be redirected to servers located in entirely different datacenters and in the cloud for optimal performance, and keeps datacenters up and running in the event of a disruption.

**NetScaler Unified Gateway™**
NetScaler Unified Gateway provides secure remote access to any application anywhere—in the datacenter or in a public cloud—from devices including laptops, desktops, thin clients, tablets and smartphones. Available in both hardware and cloud-ready virtual appliance form, NetScaler Unified Gateway mediates between users on the Internet and business applications including web, enterprise, SaaS, mobile and virtualized applications. By providing simple, secure access from all types of remote devices to any application through a single infrastructure, NetScaler Unified Gateway lets IT consolidate remote access infrastructure to reduce administrative costs and total cost of ownership while improving the user experience.

**NetScaler SD-WAN™**
NetScaler SD-WAN (formerly CloudBridge™) allows financial services organizations to cost-effectively scale bandwidth and increase the performance and reliability of wide area networks between corporate offices, branch and other remote locations, and cloud environments. The solution logically binds multiple MPLS, broadband, 4G/LTE and satellite connections into a single virtual link, and dynamically routes traffic for high-priority applications across the available path with the highest performance and best quality. NetScaler SD-WAN is available as physical and virtual appliances and as a web-based service for AWS environments.

With NetScaler SD-WAN, IT can ensure the best possible user experience for applications delivered to any location. Bandwidth efficiency optimization accelerates the delivery of enterprise applications across the WAN. The SD-WAN feature set combines all available paths into a virtual WAN, making it possible to expand network capacity through the addition of low-cost broadband connections instead of expensive MPLS circuits, reducing the cost of application delivery up to 80 percent. Application awareness allows IT to logically direct traffic for mission-criticality, while the aggregation of available paths and the combination of WAN with cloud resources helps ensure 24 x 7 application availability through seamless network failover.
NetScaler Management and Analytics System™ (MAS)

NetScaler MAS is a centralized network management, analytics and orchestration solution that allows IT administrators to view, automate and manage network services for scale-out application architectures from a single platform. In addition to reducing operational costs and simplifying tasks, MAS manages, monitors and troubleshoots your global app delivery from the datacenter to your branch offices and provides real-time analytics to help you identify and address application performance and security issues across the infrastructure. Real-time network analytics information is collected and correlated across users and devices to give a complete picture of the infrastructure. Automated troubleshooting helps network operators identify problems without painstaking manual work. HDX InsightTM provides end-to-end visibility for any type of application. The tool captures per-flow, application-layer data for protocols including ICA as well as TCP and HTTP from both NetScaler and NetScaler SD-WAN appliances. NetScaler MAS also provides big data analytics tools to transform large volumes of raw data into actionable information about individual applications and application users.

Both network- and application-aware, NetScaler MAS allows administrators to use a single console to:

- Troubleshoot performance and quality issues raised by users
- Achieve better application performance and uptime
- Manage performance proactively by identifying and resolving performance issues before they are perceptible to users
- Perform capacity planning to ensure that resources are in place as networking and appliance demands grow

Benefits for financial services organizations

NetScaler helps financial services IT keep their network and business performing at their best.

Enhanced security with a simpler user experience

Personalized workspace delivery from a central location, secured right at the network edge, allows branch workers to securely smooth-roam sessions to mobile devices in order to service customers standing in line. Unified app delivery management and adaptive access control policies maintain data security regardless of amount or type of endpoint. Virtualized apps with unified access control ensure all data and applications remain protected in the datacenter and comply with regulatory mandates. Even data delivered for offline use to PCs or mobile devices remains encrypted. Centralized security controls allow application policies to be defined and managed so that access can be restricted based on roles and devices. In this way, IT can ensure data protection without compromising on customer or user experience.

Improved application performance, availability and quality

NetScaler improves virtual app and desktop experience, and accelerates traditional enterprise applications, with optimized WAN and cloud connectivity for branch and remote users. IT can maintain high performance for mission-critical applications without additional requirements or costs, even when a network connection fails. Optimized networks can better handle sudden increases in network traffic and higher demand for access to apps and data from all users, on all types of devices, without compromising security. Load balancing distributes application requests across multiple servers, improving availability and responsiveness. In the event of a server or network outages, the solution routes traffic to the next available datacenter location to ensure uninterrupted service. The same everyday infrastructure supports the organization during a business continuity event, simplifying IT operations and reducing costs.
Low-cost connectivity to brand locations
SD-WAN features let IT use low-cost broadband connections to expand WAN capacity while maintaining MPLS-level quality and reliability. WAN virtualization also allows new branch locations to be added easily and cost-effectively to the enterprise network while increasing the reliability of business-critical applications.

End-to-end application visibility
NetScaler provides end-to-end visibility of application traffic and network data so IT can more quickly pinpoint and resolve user issues. Together with proactive monitoring of the health of the environment, this allows IT to meet aggressive SLA targets for apps and services. The ability to monitor, diagnose and improve the performance of business-critical applications helps ensure a positive user experience and high levels of employee productivity. Analysis of historical data supports capacity planning for everything from network bandwidth and back-end server resources to NetScaler appliances themselves. Detailed analysis of application usage patterns and user tendencies can also shed light on where and how to invest in both existing and future applications and services.

Financial services organizations using NetScaler today

Cornerstone Home Lending
Cornerstone Home Lending Inc. is a privately funded, full-service mortgage bank. Based in Houston, the bank’s 1,250 employees serve customers through 84 branches in 48 states.

The need
Cornerstone's business was growing fast. The company expanded its workforce by 17 percent in 2013 alone. But employees working from Cornerstone's 84 branches grappled with severe performance problems when processing loans. Accessing the company’s centralized loan-origination software and uploading customer files was time consuming and frustrating. IT management was costly and inefficient.

Results achieved with Citrix
Citrix provides a unified platform for accelerating access to Cornerstone's core loan-origination software. NetScaler offers an all-in-one controller for delivering Microsoft Office applications, and XenDesktop delivers a single desktop image to all employees.

In the past, it took at least three hours for Cornerstone loan officers to access its core loan-origination software and upload large files containing loan applications and other customer information. With Citrix, that time has been shaved to less than 45 minutes. Help desk tickets have been reduced from an average of 125 per day to a small fraction. The solution also supports Cornerstone’s evolving “bring-your-own-device” (BYOD) strategy—which means employees can use whatever device delivers the best productivity for them.

Groupe Promutual
Groupe Promutuel is made up of 26 independent entities operating through more than 140 offices across Quebec—a province larger than California, Texas and Utah combined. The company’s workforce, including 1,650 internal users and another 1,500 external insurance resellers, accesses IT services over a wide range of WAN technologies from ADSL to D3.

The need
Groupe Promutuel has sites of 50 people that are 12 hours from the next major city, well beyond the reach of fiber. Trying to increase bandwidth to these locations wasn't financially viable, and the technology simply wasn't available. Groupe Promutuel needed a way to support these users more effectively within their existing network capacity, while also reducing the need to support remote hardware.
Results achieved with Citrix
Groupe Promutuel’s use of Citrix solutions to support its dispersed workforce began with the deployment of NetScaler to accelerate and load-balance various web services. Next, the Group deployed XenDesktop and XenApp to centrally manage and deliver virtual desktops and streaming applications, first to its partner businesses, then to its own employees. NetScaler SD-WAN provided service-centric WAN optimization to help Group Promutuel optimize its available network capacity, accelerate service performance and reduce bandwidth consumption.

With XenDesktop, Groupe Promutuel can easily deliver applications and desktops as a service to users in any location. NetScaler SD-WAN has provided a five-fold improvement in application performance over limited bandwidth. Previously, the Group’s documents were spread across 30 servers in the field as well as numerous user desktops. Now the company has everything in a centralized, controlled and secure environment. The Group is now using its Citrix environment as the foundation for a new business continuity and disaster recovery strategy.

Conclusion

Financial services IT today must achieve unprecedented agility to keep pace with rapidly shifting business models, customer expectations and employee workstyles. At the same time, efficiency and security remain critical priorities to manage costs and risk. Citrix NetScaler provides a flexible network environment to support employees and customers in any location, on any device, with optimized performance and availability. Granular, scenario-based secure access control, encryption and the centralization of apps and data support security and compliance, while global server load balancing and network redundancy help maintain business continuity. As networking requirements shift, expand and contract across locations, SD-WAN capabilities make it possible to scale capacity up, down, in and on-demand quickly and cost-effectively, without the need for costly MPLS investment. Unified monitoring, application awareness and integrated analytics help IT identify and resolve performance problems quickly. Able to provide a secure, high-quality experience for any kind of application to users in any location, on any device, while controlling cost, financial services IT organizations can achieve the best results for their business and their customers.

Additional Resources

Transform the branch office for high-touch, high-performance experiences

Secure app and data delivery for a mobile financial services workforce

citrix.com/netscaler

citrix.com/financialservices