



Successfully Managing VDI Services with the BIG-IP System

The F5® BIG-IP® system supports heterogeneous virtual desktop infrastructure (VDI) architectures comprising Citrix XenApp and XenDesktop, Microsoft VDI, and VMware View by improving the security, reliability, and performance of VDI implementations. The BIG-IP system meets the unique challenges inherent in the design and deployment of architectures required to efficiently manage growth and scaling of virtual desktop services.

Delivering VDI Services

VDI implementations offer many appealing benefits to both large and small organizations, including reduced CapEx and OpEx. VDI can enable your organization to realize business and operational goals, but it poses some challenges as well: security and scalability. The ability to scale, secure, manage, and optimize VDI implementations is paramount to success and should be part of a holistic virtual desktop delivery strategy.

New protocols such as DTLS, and best practices regarding existing protocols such as SSL and the move to longer bit-length keys impose performance penalties on virtual desktop delivery while consuming additional resources, negatively affecting the entire virtual desktop infrastructure. These performance and capacity degradations can also negatively affect the user experience, causing slower adoption rates and even failed initiatives. The need for access management solutions complicates single sign-on architectures and implementations, and it often introduces additional performance penalties that can further impede user adoption. The loss of single sign-on capabilities arising from complex architectures can also be frustrating for users and result in lower productivity and increased help desk calls.

The unique nature of VDI can also affect scalability, in that it requires user-server mappings to ensure consistent interaction with specific desktop instances. Failure to properly address this unique mapping while scaling out the infrastructure can lead to user frustration, and hinders user acceptance of VDI on the basis of reduced productivity.

Whether VDI architecture is homogeneous or heterogeneous—comprising Citrix XenApp and XenDesktop, VMware View, and Microsoft VDI—F5 solutions provide a flexible foundation for a secure, fast, and reliable delivery infrastructure. F5's extensibility model is flexible and powerful. It offers seamless integration with the monitoring and management products required to ensure an agile virtual infrastructure that can be automated as much or as little as necessary while remaining firmly under the control of the organization.

Key features

- **Consolidated ADC Platform**—Offers flexible and centralized access policy management
- **Integrated End-Point Security**—Provides validation and graded authentication
- **Hardware Acceleration**—Accelerates security functions to improve performance
- **Management Integration**—Integrates with virtualization management solutions
- **Multi-Tenancy and Virtual Platforms**—Provides multiple solutions for managing scale, growth, and phased deployments

Key benefits

- **Cryptographic Hardware**—Offloads computationally expensive cryptography to reduce impact of longer keys
- **Collaborative Delivery Services**—Enables cross-site resiliency and business continuity
- **Lower Cost**—Allows multiple application services to be managed on one device with the BIG-IP integrated delivery platform
- **Efficient Scale**—Scales to effortlessly handle thousands of virtual and physical servers
- **Unequaled Support**—Offers support options designed to keep operations and users online and productive

F5 Solution

The F5 BIG-IP system of Application Delivery Controllers (ADCs) unites all the components required to make a complete and secure VDI services delivery solution in one integrated and consolidated platform:

- **BIG-IP® Local Traffic Manager™ (LTM)**—BIG-IP LTM is designed to efficiently direct users to the appropriate VDI server based on level of service, availability, and performance. It supports a variety of persistence models. Empowered with cryptographic hardware, BIG-IP LTM offloads computationally expensive processing to improve VDI server capacity, performance, and density.
- **BIG-IP® Global Traffic Manager™ (GTM)**—BIG-IP GTM directs users to the most appropriate service location based on geography, level of service, and availability. When BIG-IP GTM is combined with BIG-IP LTM, organizations can maintain business continuity in the face of an outage or other connectivity interruption.
- **BIG-IP® Access Policy Manager™ (APM)**—BIG-IP APM is a flexible, high-performance security solution that provides policy-based, context-aware access to VDI services based on user and back-end service policies. It simplifies AAA management, including single sign-on solutions, with native support for many identity stores.
- **BIG-IP® Edge Gateway™**—BIG-IP Edge Gateway is a complete user and application access solution for secure access services. It combines SSL VPN remote access, security, application acceleration, bandwidth management, and availability services for all types of remote users.

F5 BIG-IP ADCs give organizations the flexibility, manageability, and agility necessary to meet user expectations of a physical desktop experience while being served virtually.

Learn more

For more information about BIG-IP virtualization solutions, use the search function on f5.com to find these resources.

Solution pages

[Microsoft Virtualization](#)

[Solutions for VMware](#)

Application Ready Network Guide

[Citrix Presentation Server](#)

Product page

[BIG-IP Product Family](#)

White papers

[Delivering Virtual Desktop](#)

[Infrastructure with a Joint F5-Microsoft Solution](#)

[Deploying F5 Application Ready Solutions with VMware View 4.5](#)

[Application Delivery and Load Balancing for VMware View Desktop Infrastructure](#)

[Optimizing VMware View VDI Deployments with F5](#)

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