

Migrating Virtualized Applications Between Data Centers

F5 and VMware offerings

- BIG-IP® Local Traffic Manager™
- BIG-IP® Global Traffic Manager™
- BIG-IP® WAN Optimization Module™
- VMware vSphere
- VMware vMotion
- VMware Storage vMotion

VMware vSphere provides powerful solutions for improving IT agility through virtualization. F5® BIG-IP Local Traffic Manager (LTM) Application Delivery Controller integrates with vSphere to take this agility even further. By combining both solutions, users can perform efficient live migrations of virtual machines and their storage, between data centers thousands of miles apart.

Seamless Live Migration Between Data Centers

VMware vMotion enables users to move live virtual machines (VMs) from one server to another. Organizations that have come to rely on vMotion and Storage vMotion for daily use are now realizing the possibility of using it to move VMs between local or remote data centers. This can serve a wide range of use cases, from simple one-time application migrations to capacity expansion or even disaster avoidance.

vMotion normally requires that migration be restricted within a single local vCenter Server cluster and layer 2 network domain. Furthermore, vMotion performance is sensitive to network latency and bandwidth, which historically prevented long-distance vMotion events.

This solution overcomes both challenges by intelligently managing application network traffic and accelerating the transmission between sites. The result is that previously impossible migrations between distant sites are now fast, reliable, and secure.

Learn More

For more information about F5 and VMware vMotion, use the search function on F5.com to find the following resources.

White paper

[Connecting to the Cloud with F5 BIG-IP Solutions and VMware vMotion](#)

Deployment guide

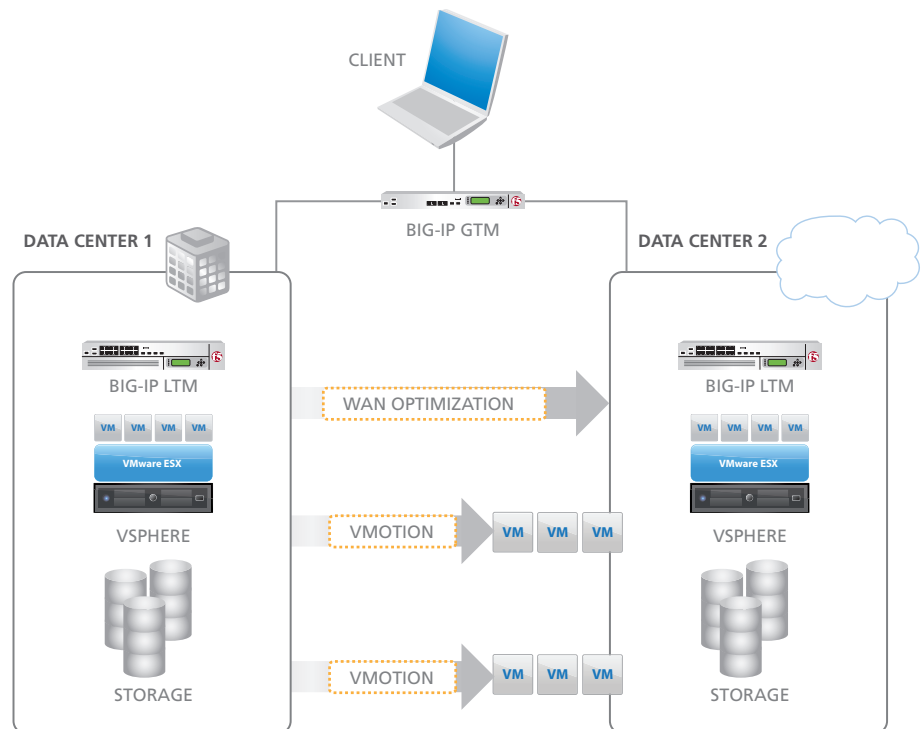
[Deploying BIG-IP v10.2 to Enable Long-Distance vMotion with VMware vSphere](#)

Demo

[F5 Demonstrates Enhanced Live App Migration Between Clouds](#)

The solution delivers four key benefits:

- **Local traffic control.** Existing application client connections are redirected seamlessly, automatically, and securely before, during, and after the vMotion events.
- **Global traffic control.** New application client connections are directed intelligently and automatically to the new data center, in tandem with the local traffic control mechanism once vMotion is complete.
- **Acceleration.** In order to maximize the performance of the data transfers, WAN links are accelerated using protocol optimization, compression, deduplication, and encryption. Acceleration of vMotion is what enables successful migration despite network latency between data centers that might be thousands of miles apart.
- **Orchestration.** The solution is integrated using APIs for a seamless migration process. It can be easily integrated with any orchestration engine.



Example of a long-distance vMotion architecture.

To find out how F5 and VMware joint solutions can help your business, contact VMwarepartnership@f5.com or visit the [VMware solutions page](#).

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