



## Improving Business Continuity with VMware Cloud Computing and F5

### Business Continuity Challenges

Implementing plans to ensure business continuity for key IT services and business critical applications is an essential requirement for organizations today. Downtime of important applications is a costly proposition and extended downtime can even be fatal—industry research finds that a significant number of companies that experience extended interruption to IT services soon go out of business.

While most organizations recognize the importance of business continuity, their ability to deliver effective protection for important applications is limited by the following challenges:

- **High costs.** Many solutions require significant investment in additional hardware, software and services. Disaster recovery plans in particular often require duplicating data center infrastructure, resulting in a proliferation of under-utilized servers.
- **High complexity.** Traditional business continuity solutions add significant complexity to data center environments. Acquiring and managing additional servers, use of complex cluster tools, implementing and maintaining specialized software and processes all contribute to this complexity.
- **Failure to meet recovery time and availability goals.** Due to the cost and complexity of business continuity solutions, organizations are often forced to compromise on solutions that are unlikely to meet goals for availability and recovery time objectives.
- **Unreliable solutions.** Testing existing complex business continuity solutions is challenging and requires significant equipment, expertise and personnel resources. The complexity of these specialized solutions also makes them difficult to maintain.

### Ensuring Availability with VMware Virtualization

VMware vSphere™ makes it possible to reduce both planned and unplanned downtime without the cost and complexity of alternative solutions. Organizations using VMware can slash planned downtime by eliminating most scheduled downtime for hardware maintenance.

VMware VMotion™ technology, VMware Distributed Resource Scheduler (DRS) maintenance mode, and VMware Storage VMotion make it possible to move running workloads from one physical server to another without

downtime or service interruption, enabling zero-downtime hardware maintenance.

### Delivering Effective Disaster Recovery

Traditional disaster recovery solutions are costly, complex and frequently do not meet recovery objectives. Ensuring the fastest and most reliable recovery with traditional solutions requires fully duplicating production infrastructure—and its costs—in order to avoid failures due to hardware dependencies. Traditional recovery plans also require complex manual processes that are slow and prone to error. As a result, organizations find themselves unable to provide sufficient disaster recovery protection for more than a few privileged systems.

Organizations are turning to VMware software and technology to address these challenges because it enables effective disaster recovery for both physical and virtualized servers. Physical servers can be recovered to virtual machine recovery targets in a “physical-to-virtual” recovery scenario. Even greater benefits can be realized in a “virtual-to-virtual” recovery scenario, where virtual machines in production are recovered to virtual machines.

Using VMware products and solutions, organizations can effectively meet core requirements for disaster recovery

### Key Benefits

Customers who use VMware software and technology to improve their business continuity plans experience numerous benefits, including:

- Downtime reduction by eliminating planned downtime due to maintenance, or reducing un-planned downtime through economical sharing of fault-tolerant hardware features, and automated rapid restart of virtual machines.
- VMware software makes it possible for companies to implement better business continuity at a lower cost by slashing the need for additional hardware and specialized software over costs by implementing better business continuity at a lower cost, eliminating the need for additional hardware and specialized software.
- Simplified processes by removing the complexity of maintaining duplicate physical systems for disaster recovery.

### Learn More

To learn more about VMware solutions and products, visit <http://www.vmware.com> or call 1-877-4VMWARE.



**F5 Networks, Inc.**  
www.f5.com

## ISV Overview

F5 provides solutions that enable customers to improve the performance, availability and security of their application traffic.

## Key Business Benefits

F5 is the only application delivery controller vendor that provides an open architectural framework, along with:

- F5 TMOS®, the shared product platform that adds intelligence and complete control to application delivery.
- F5 iRules™, the event-driving scripting language that customizes how application traffic is delivered.
- F5 iControl®, the open API that helps automate communications and eliminates the need for costly manual intervention.
- DevCentral, a business-driven social networking site of more than 35,000.

## Business Results

- Cost savings from leveraging the cloud seamlessly
- Application performance gains by leveraging the cloud
- Application continuity and uptime metrics — meet or exceed SLAs
- Reduce manual network configuration and avoid manual errors in network configuration

## VMware and F5

F5 is the only application delivery controller vendor that provides an open architectural framework, offering IT organizations new ways to deliver services that generate true business value.

## VMware Products

- VMware® vSphere™
- VMware vCenter™
- VMware vCenter™ Site Recovery Manager
- VMware vCenter AppSpeed™

## F5 Products

F5 BIG-IP Global Traffic Manager

# Dynamically Manage Application Traffic Between Your Datacenter and the Cloud

Intelligently and automatically direct traffic between on-premise and cloud-based compute resources

## Industry Overview

Often traffic must be manually configured to be sent to one datacenter or another. Redirecting traffic between datacenters is a manual, time consuming and error-prone affair, making it difficult to deploy cloud bursting, or necessary to rely on a secondary datacenter for application disaster recovery purposes.

The F5 solution addresses the needs to dynamically and automatically adjust the inbound application traffic between owned datacenter(s) and the cloud, depending on the situation at hand (for example, disaster recovery situation, cost comparisons, traffic volume, etc.). Network, application, and server administrators as well as IT architects can benefit from the F5 solution. Network, application, and server administrators as well as IT architects can benefit from the F5 solution.

## Solution Overview

F5 BIG-IP® Global Traffic Manager™ (GTM) is a high-performance hardware appliance that provides a more intelligent way to respond to DNS queries than simple load balancing among multiple datacenters. BIG-IP GTM distributes user application requests based on business policies, datacenter conditions, network conditions, and application performance. This gives users holistic control of their global traffic to ensure high availability and maximum performance for applications running across multiple dispersed datacenters. The result is better application performance, less downtime, and simplified management.

- BIG-IP GTM enables cloud customers to:
  - » Burst to the cloud
  - » Direct traffic intelligently among virtual machines located at multiple datacenters

- » Route global traffic to the closest and most logical global datacenter to maximize speed

## Solution Benefits

Having a dynamic global traffic management solution enables customers to burst to the cloud if and when they choose, seamlessly, for maximum virtual machine performance and cost savings, while meeting application SLAs. The cloud is no longer an either/or proposition.

- Benefits include:
  - » Meet SLAs by ensuring consistently high performance and availability
  - » Improve the ability to scale up and deliver added capacity on demand
  - » Improve WAN performance between datacenters

BIG-IP Global Traffic Manager is part of a suite of BIG-IP products from F5 that covers all areas of application traffic performance, availability, and security. BIG-IP GTM is available on a number of hardware platforms that enable it to scale up to the highest levels of traffic throughput anywhere.

Unlike the competition, F5 is the only vendor in the industry to solve a multi-service application challenge as well as provide organizations with a programmatic approach to traffic distribution.

## VMware and F5 Integration

BIG-IP GTM can be easily integrated via its API with VMware vCenter or Site Recovery Manager. This enables the device to take automated traffic instructions from these VMware products.

This automation ensures that application traffic can be dynamically managed across local and cloud resources, for maximum efficiency, availability and performance.