A Hybrid Cloud Architecture for Elastic Applications with F5 and VMware

For organizations managing elastic applications, a hybrid cloud application architecture provides a robust and cost-effective solution to handle application workloads as they expand and contract. Rather than provisioning servers in the data center for peak traffic, a hybrid architecture enables dynamic deployment and scale of application instances running in the cloud.

Cloudbursting traditionally involves manual, time-consuming intervention. Often the cloudburst is required for urgent reasons, making manual intervention too cumbersome and error prone. Organizations can overcome these challenges by automating this process, dynamically managing application traffic, and optimizing data synchronization using F5® solutions, VMware vCloud Director, and VMware GemStone SQLFabric.

Maintain Performance During Traffic Spikes

This solution relies on products from F5 and VMware to monitor application performance metrics and expand into the cloud when they exceed predetermined thresholds. Once in the cloud, the solution can further provision and scale application instances as needed based on demand. This ensures that organizations can maintain application performance and availability despite unpredictable usage patterns and tight cost controls.

VMware vCloud Director provides a manageable, scalable platform for cloud services, plus the necessary APIs to provision capacity on demand. Within each data center or cloud, BIG-IP® Local Traffic Manager™ (LTM) provides the traffic management and monitoring functions, ensuring that the application remains fast, available, and secure at all times. F5 BIG-IP® Global Traffic Manager™ (GTM) determines when and how to direct traffic.
traffic among the different sites or clouds. This is based on preconfigured policies set up to automatically respond to varying application load patterns.

Finally, VMware GemStone SQLFabric provides the necessary distributed caching and replication of the database objects between the data center and the cloud, keeping application content localized and thereby minimizing the performance effects of latency between the application and its data. BIG-IP LTM adds encryption and WAN optimization for SQLFabric communications between the data center and the cloud.

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