F5 Friday: Enhancing FlexPod with F5

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#VDI #cloud #virtualization Black-box style infrastructure is good, but often fails to include application delivery components. F5 resolves that issue for NetApp FlexPod

The best thing about the application delivery tier (load balancing, acceleration, remote access) is that is spans both networking and application demesnes. The worst thing about the application delivery tier (load balancing, acceleration, remote access) is that is spans both networking and application demesnes.

The reality of application delivery is that it stands with one foot firmly in the upper layers of the stack and the other firmly in the lower layers of the stack, which means it's often left out of infrastructure architectures merely because folks don't know which box it should go in.

Thus, when "black-box" style infrastructure architecture solutions like NetApp's FlexPod arrive, they often fail to include any component that doesn't firmly fit in one of three neat little boxes: storage, network, server (compute). FlexPod isn't the only such offering, and I suspect we'll continue to see more "architecture in a rack" solutions in the future as partnerships are solidified and solution providers continue to expand their understanding of what's required to support a dynamic data center.

FlexPod is a great example of both an "architecture in a rack" supporting the notion of a dynamic data center and of the reality that application delivery components are rarely included.

> "FlexPod™, jointly developed by NetApp and Cisco, is a flexible infrastructure platform composed of pre-sized storage, networking, and server components. It's designed to ease your IT transformation from virtualization to cloud computing with maximum efficiency and minimal risk."
>
> -- NetApp FlexPod Data Sheet

NetApp has done a great job of focusing on the core infrastructure but it has also gone the distance and tested FlexPod to ensure compatibility with application deployments across a variety of hypervisors, operating systems and applications, including:

- VMware® View and vSphere™
  Citrix XenDesktop
  Red Hat Enterprise Linux® (RHEL)
  Oracle®
  SAP®
  Microsoft® Exchange, SQL Server® and SharePoint®
  Microsoft Private Cloud built on FlexPod

What I love about this particular list is that it parallels so nicely the tested and fully validated solutions from F5 for delivering all these solutions.

- Citrix XenDesktop
- VMWare View and vSphere
- Oracle
- SAP
- Microsoft® Exchange, SQL Server® and SharePoint®

That means that providing a variety of application delivery services for these applications - secure remote access, load balancing, acceleration and optimization – should be a breeze for organizations to implement. It should also be a requirement, at least in terms of load balancing and optimization services. If FlexPod makes it easier to dynamically manage resources supporting these applications then adding an F5 application delivery tier to the mix will ensure those resources and the user experience are optimized.

SERVERS should SERVE

While FlexPod provides the necessary storage, compute, and layer 2 networking components, critical application deployments are enhanced by F5 BIG-IP solutions for several reasons:

- **Increase Capacity**
  Offloads CPU-intensive processes from virtual servers, freeing up resources and increasing VM density and application capacity
- **Improved Performance**
  Accelerates end-user experience using adaptive compression and connection pooling technologies
- **Enables Transparent and Rapid Scalability**
  Deployment of new virtual server instances hosted in FlexPod can be added to and removed from BIG-IP Local Traffic Manager (LTM) virtual pools to ensure seamless elasticity
- **Enables Automated Disaster Recovery**
  F5 BIG-IP Global Traffic Manager (GTM) provides DNS global server load balancing services to automate disaster recovery or dynamic redirection of user requests based on location.
- **Accelerated Replication Traffic**
  BIG-IP WAN Optimization Manager (WOM) can improve the performance of high latency or packet-loss prone WAN links. NetApp replication technology (SnapMirror) will see substantial benefit when customers add BIG-IP WOM to enhance WAN performance.
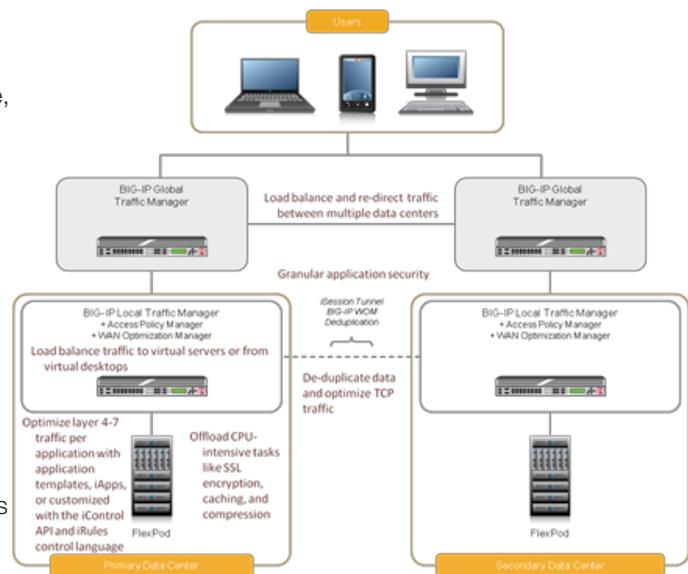
Bonus: Operational Consistency

Because BIG-IP is an application delivery platform, it allows the deployment of a variety of application delivery services on a single, unified platform with a consistent operational view of all application delivery services. That extends to other BIG-IP solutions, such as BIG-IP Access Policy Manager (APM) for providing unified authentication to network and application resources across remote, LAN, and wireless access.

Operational consistency is one of the benefits a platform-based approach brings to the table and is increasingly essential to ensuring that the cost-saving benefits of cloud and virtualization are not lost when disparate operational and management systems are foisted upon IT.

FlexPod only provides certified components for storage, compute and layer 2 networking. Most enterprise application deployments require application delivery services whether for load balancing or security or optimization and ones that do not still realize significant benefits when deploying such services.

Marrying F5 application delivery services with a NetApp FlexPod solution will yield significant benefits in terms of resource utilization, cost reductions, and address critical components of operational risk without introducing additional burdens on already overwhelmed IT staff.

- Operational Risk Comprises More Than Just Security
- The Future of Cloud: Infrastructure as a Platform
- At the Intersection of Cloud and Control…
- The Pythagorean Theorem of Operational Risk
- The Epic Failure of Stand-Alone WAN Optimization
- Mature Security Organizations Align Security with Service Delivery

- F5 Friday: Doing VDI, Only Better