Provision and Scale High-Performing Applications Faster in the Cloud
A Riverbed and VMware Joint Partner Brief

Business challenges

Application development is evolving faster than ever in the cloud. Daily updates on functionality, hourly changes in scale, and a constant pressure of user demand challenge application owners. In addition, as applications move to the cloud and become more dynamic, performance solutions must keep pace with how they are changing. Application delivery in the cloud brings many advantages, such as the ability to auto-scale these applications on demand and to balance loads across multiple clouds.

Cloud computing allows enterprises to leverage their existing investments while seamlessly delivering applications that span both cloud and on-premise infrastructures (hybrid clouds), and provides application owners with instant access to infrastructure. However, building applications for the cloud still requires administrators to individually install and configure application components on each virtual machine to plug into the application architecture. This problem is compounded for high performing multi-tier enterprise applications. In today's cloud era, organizations need a better way to accelerate application deployment and performance across cloud environments.

The Riverbed Stingray Traffic Manager: The power of application acceleration

Riverbed® Stingray™ Traffic Manager is a full performance software and virtual Layer 7 application delivery controller (ADC) that enables enterprises and cloud operators to create, manage, and deliver key services more quickly, more flexibly, and at a lower cost. Stingray Traffic Manager software offers much more than just load balancing. It controls and optimizes end-user services by inspecting, transforming, prioritizing, and routing application traffic. Stingray™ TrafficScript facilitates the implementation of traffic management policies that are unique to an application by allowing organizations to build custom functionality or leverage existing features in Stingray Traffic Manager software in a specialized way.

Stingray products are designed for the cloud, whether public or private. Most other application delivery providers offer hardware load balancers or firewalls, or at best, very limited virtual machine versions. Stingray Traffic Manager is designed from the ground up to be deployed as software, so it is better suited to development, operations, and cloud needs.

Stingray Traffic Manager software benefits include:

1. **Speed**: Accelerate services, increase capacity, and reduce costs by offloading performance-draining tasks such as SSL and compression onto Stingray’s optimized implementations. Administrators can also cache commonly requested content and optimize traffic delivery to your applications so they’ll run as fast as they would in a perfect benchmark environment.

At A Glance

Riverbed has partnered with VMware to integrate the Stingray Traffic Manager application delivery controller (ADC), with VMware vFabric Application Director hybrid cloud application provisioning solution.

The solution is available at VMware Cloud Application Management marketplace beta.

Features:
- Provision and scale multi-tier applications faster and smarter in a hybrid cloud environment
- Application portability across cloud services
- Accelerate application performance and load web pages up to 4x faster
- Repeatable deployments using vFabric Application Director application blueprints

Stingray Traffic Manager software is the complete solution for application delivery for the data center and the cloud.
2. **Reliability**: Improve application availability by intelligently distributing traffic, avoiding failed or degraded servers, monitoring performance problems, and shaping traffic spikes.

3. **Improved security**: Stingray Traffic Manager software operates as a deny-all gateway, only admitting traffic types it has been configured to admit. This gives full control over how traffic is internally routed. High-performance inspection can interrogate any part of a request or response to apply global filtering or scrubbing policies. The Stingray™ Application Firewall option also protects against a broad range of web application attacks.

4. **Ease of management**: Stingray Traffic Manager software makes it easy to manage how users interact with the applications, and the infrastructure those applications depend on. Administrators can also use it to shape, prioritize, and route traffic, to drain infrastructure resources prior to maintenance, and to upgrade user sessions across application instances all while preserving the user experience the business demands.

**How Stingray Traffic Manager software works**

Stingray Traffic Manager software inspects and processes application traffic, with full payload inspection and streaming. It applies a range of optimization techniques to ensure that incoming requests are presented in the most appropriate manner to the web and application servers. Responses from the application can be compressed, cached, and returned to the client at optimum speed, while freeing up resources on the server. Built-in TrafficScript™ software allows for full control over how individual requests are optimized, routed, and transformed. Traffic management rules may also be created using Java™ Extensions.

Stingray Traffic Manager software includes a web-based administration interface to display powerful real-time analysis and history for all traffic across Traffic Manager clusters. Alternatively, it integrates into remote management and event monitoring frameworks using Simple Object Access Protocol (SOAP) APIs and Simple Network Management Protocol (SNMP).

**What is VMware vFabric Application Director?**

VMware® vFabric™ Application Director is an application provisioning solution that provides deployment automation and self service provisioning by standardizing, streamlining, and automating release into hybrid cloud environments. vFabric Application Director is easy to use, supports hybrid cloud, provides seamless application portability across cloud services and enables repeatable deployments with standard deployment settings.

**vFabric Application Director key features**

**Simple and Automated Application Provisioning**

- Graphical drag-and-drop canvas for creating application blueprints that makes planning and deploying complex applications easy
- Intuitive point-and-click interface for customizable scripts, enabling customers to override configurations and execute deployments with the click of a button
Cloud-Ready Provisioning

- Abstraction of application-specific deployment logic from the underlying cloud infrastructure allows true separation between applications and infrastructure and enables reuse of the same blueprint on multiple virtual and cloud infrastructures.
- Automatically generated deployment execution plans enable organizations to perform audits before deploying regulated applications.
- Open and extensible architecture provides flexibility to select your choice of scripting language (e.g., Python, Puppet, Ruby).

Standardized and extensible use of application components and middleware

- Offers ready-to-use out-of-the-box, middleware, installation and configuration services, based on best practices
- Is optimized for vFabric middleware stack
- Integrates with cloud templates to leverage existing investments in cloud catalogs
- Integrates with third-party products and services to leverage existing investments in application infrastructure

How is vFabric Application Director used?

vFabric Application Director is easy to use, supports hybrid cloud, enables seamless application portability across cloud services and enables repeatable deployments with standard deployment settings. Starting with a drag-and-drop canvas, users can layer software, scripts, configurations and dependencies atop standard virtual machine templates directly from their cloud provider library. Users can easily deploy these application topologies called application blueprints to hybrid cloud environments or store for reuse. In addition, customers can leverage existing best practice application infrastructure components to reduce costs and accelerate time to value.

vFabric Application Director provides an easy-to-use drag-and-drop canvas for users to register cloud providers, select virtual machine templates and then customize application topologies using a convenient catalog of software and scripts.

Combining Stingray application acceleration power with VMware vFabric Application Director automation capability

Riverbed has partnered with VMware to integrate industry’s only pure-software ADC, the Stingray Traffic Manager application delivery controller (ADC), with VMware’s vFabric Application Director hybrid cloud application provisioning solution. The joint solution now enables customers to provision and scale high performing multi-tier applications faster and smarter in a hybrid cloud environment, enabling a higher level of application portability across cloud services and repeatable deployments of selected applications with standard deployment settings.

This combined solution provides automated installation and configuration for Stingray Traffic Manager Application Service (Standalone Configuration) as a service, and utilizes industry’s leading cloud-enabled application provisioning solution, vFabric Application Director, which takes a model-driven open approach to drastically simplify and automate application deployment topologies of multi-tier complex application in hybrid clouds. The product enables rapid deployments using reusable standardizing application configurations encapsulated in portable cloud application blueprints.

Designed for the cloud, Stingray Traffic Manager software’s simple scripting, easy user interface-based configuration management, and robust application programming interface (APIs) enable the Stingray Traffic Manager software to be managed like an application and provisioned like a service, making it better suited than a hardware load balancer to accelerate multi-tier applications in a virtual or cloud environment.
How does the integrated solution work?

Stingray Traffic Manager software is now available as a service for vFabric Application Director on VMware Marketplace and can be deployed directly within vFabric Application Director. With vFabric Application Director, application architects can easily design, customize, automate and deploy applications in cloud environments. With the joint solution, application architects can front existing or new applications with the industry’s only pure-software ADC, Stingray Traffic Manager software for faster acceleration in the cloud. Stingray Traffic Manager software and virtual editions complement VMware vFabric Application Director’s flexible nature, all while ensuring application acceleration and increased performance.

The integration between Riverbed and VMware for out-of-the-box application blueprints enables customers to deliver high performing applications faster and with ease, significantly accelerating their time to market and reducing costs.

Expanded integrations

Riverbed and VMware are partnering with leading application middleware vendors and system integrators to expand our joint solution. The first such partnership is with Zend, a provider of software and services for developing, deploying and managing business-critical PHP applications in the cloud. This partnership will yield a blueprint for Magento E-Commerce store on a clustered high availability Zend server fronted by Riverbed. Customers who want high performing PHP applications in the cloud will now be able to use new blueprints that can save them significant time and resources.

These expanded integrations for ready-to-use high performing real world multi-tier enterprise application blueprints by Riverbed and VMware will accelerate software web-based applications into the cloud for large enterprise customers who are heavily investing in application modernization efforts.

Conclusion

As applications move to the cloud and become more dynamic, performance solutions must keep pace with how they are evolving. Stingray Traffic Manager software was designed with the cloud in mind, and its ability to accelerate applications is unrivaled. Riverbed and VMware have a longstanding history that enables better performing IT for enterprises. Integrating Stingray Traffic Manager software and vFabric Application Director is an important progression for application architects and enterprises in the cloud, enabling faster, easier and highly scalable deployments of multi-tier enterprise applications in the cloud.

More information