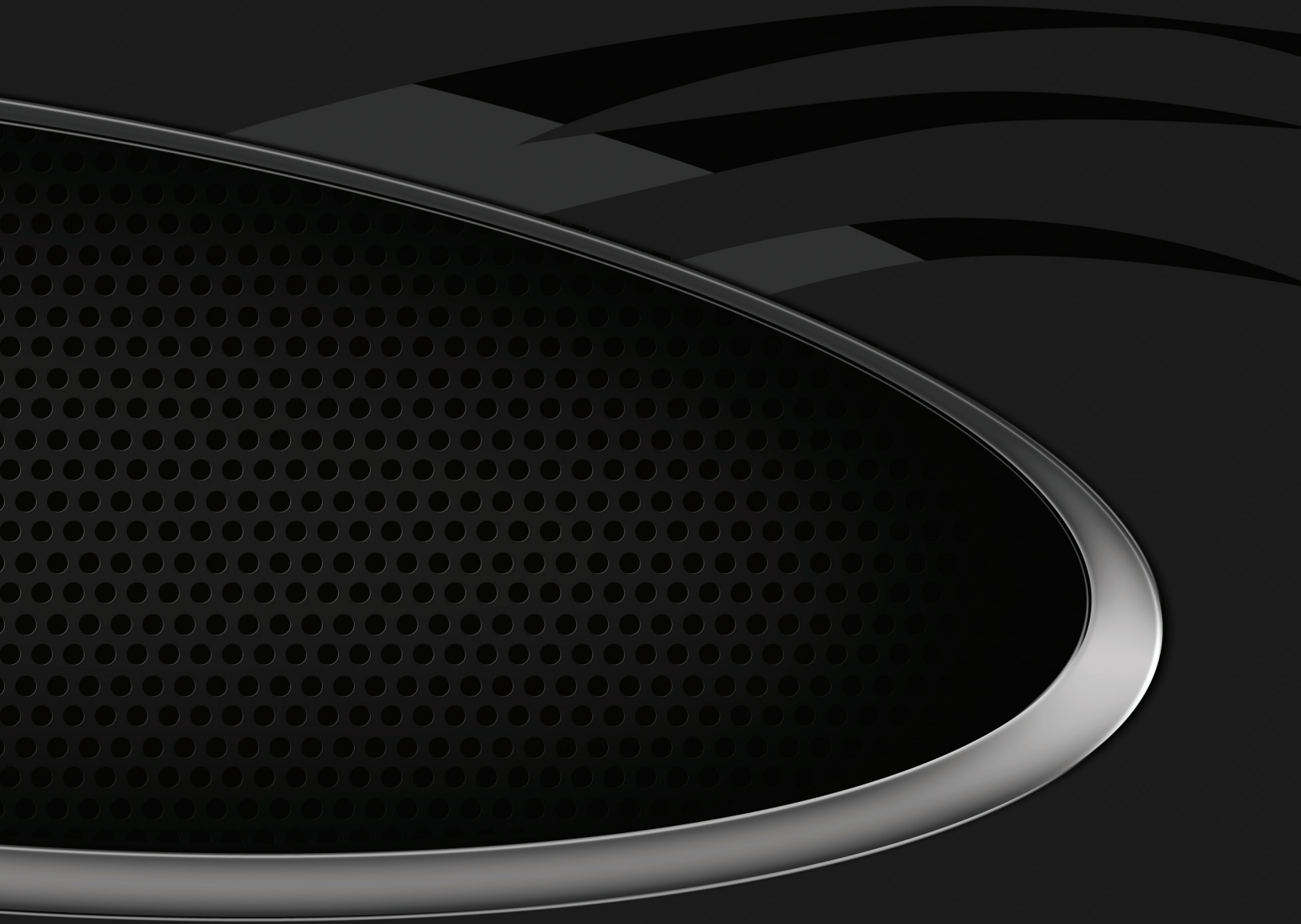


Riverbed Stingray Traffic Manager



Overview

As application environments become more complex, more distributed, and more virtualized, enterprises need a broader set of tools to solve performance problems for their web-based services.

Riverbed® Stingray™ is a software-based Layer 7 application delivery controller (ADC) designed to deliver faster, high performance user experience, with more reliable access to public websites and enterprise applications, whether they run in a public cloud, private cloud or virtualized environment, while maximizing the efficiency and capacity of web and application servers. Look to Stingray ADC for:

- Intelligent load-balancing
- Application acceleration
- Dynamic content caching
- SSL and compression offload
- Service-level monitoring
- Global load-balancing
- Bandwidth management
- Cloud bursting and balancing

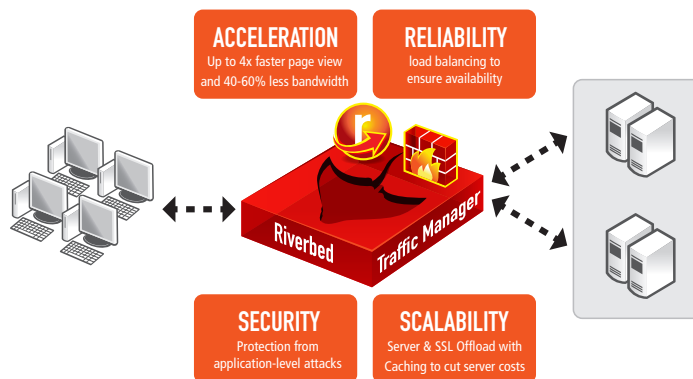
User expectations for application performance continue to increase. The speed at which online shoppers complete a transaction or employees access an enterprise application directly impacts revenue and productivity. Everyone expects instant response from websites and web applications, and the longer they take to deliver, the more likely users will lose interest and shift their attention elsewhere. This translates to lost revenue, less awareness, reduced collaboration, and decreased productivity.

The interface between networks and applications is growing more complex, which means that to perform optimally, applications need to know more about the user, device, and network characteristics. Some parts of applications need to be protected and prioritized above others, such as checkout processes and account profiles. In response, application developers and operators are seeking new tools that give them the visibility, control, and performance that they need to allow for this.

Stingray application delivery controller (ADC) from Riverbed Technology is the industry's only complete software-based Layer 7 ADC with integrated web content optimization (WCO) capability, freeing applications from the constraints of traditional hardware-based load balancers. Stingray ADC takes a new approach that complements traditional ADC capabilities as well as WAN optimization capabilities. While traditional ADCs have only focused on delivering scalability and reliability for enterprise and web applications within the data center, Stingray builds on this functionality to deliver accelerated applications from any data center, private cloud, or public cloud.

Stingray™ Traffic Manager is a high-performance software ADC that is available in a range of performance profiles and can be enhanced with two add-on components to optimize content and secure online applications:

- **Stingray™ Aptimizer for Traffic Manager**, with industry-leading WCO technology, accelerates web page load times up to 4x, driving more transactions, productivity, and user satisfaction
- **Stingray™ Application Firewall** is a sophisticated, application-aware application firewall for deep application security in the private or public cloud



Stingray Traffic Manager helps applications be faster, more secure, more scalable, and more resilient.

Stingray Traffic Manager

Deliver fast, secure, and available applications

Web traffic is rarely constant: it has peaks and valleys that can make it difficult to plan for future business growth. Stingray Traffic Manager is a unique, high-performance software solution that's mobile, flexible, and scalable. It allows cost-effective scale capacity and move between hardware and deployment platforms as required, and it reduces the strain placed on application infrastructure with network-level buffering, protocol optimizations, and application-specific measures such as dynamic compression and caching. The result is reduced latency, increased capacity, improved availability, and optimized service levels for each end user.

Unique WCO and application firewall add-on capability

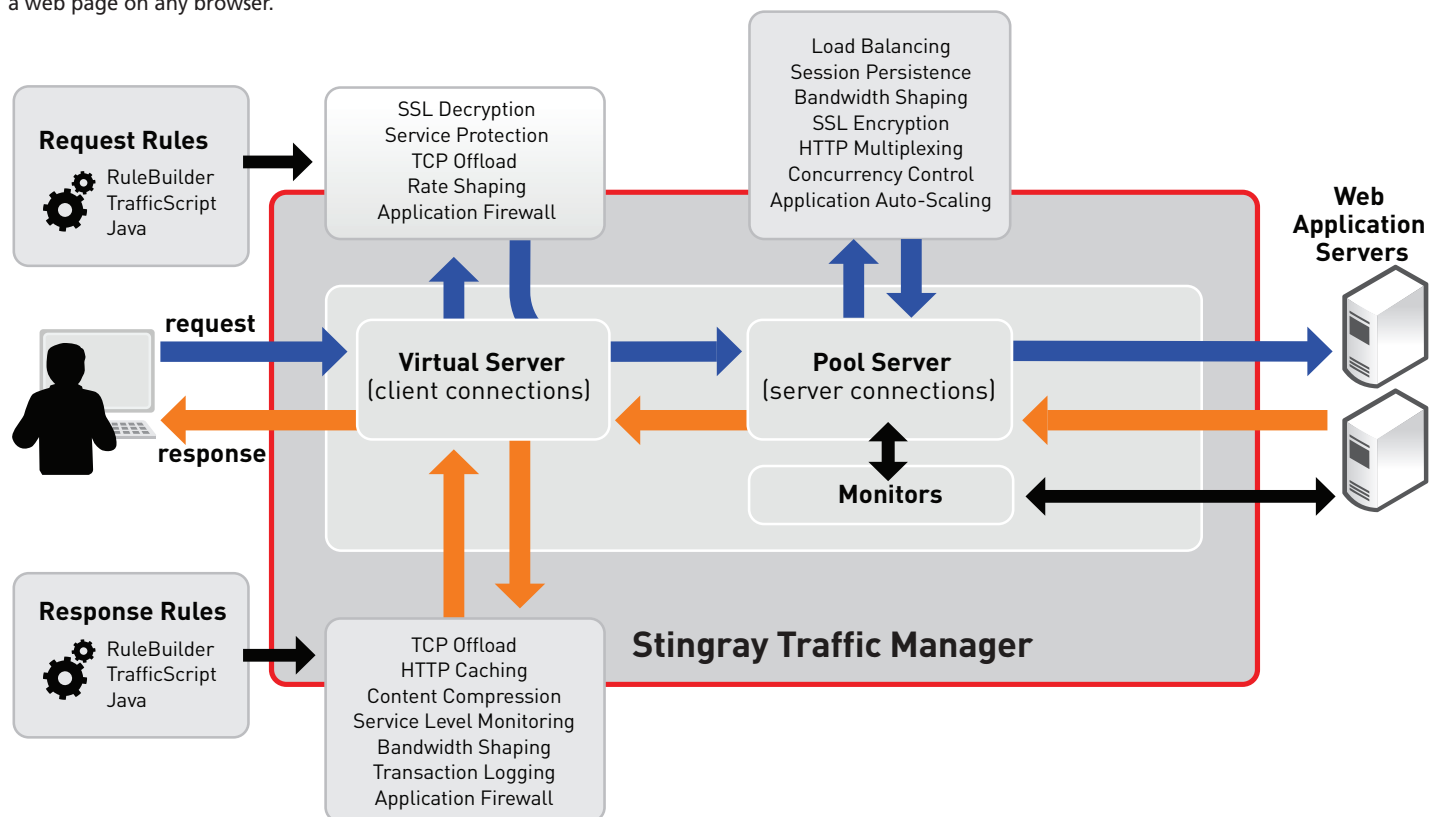
Stingray Traffic Manager 9.0 now includes industry-leading WCO, dramatically accelerating web-based applications and websites. This capability, delivered by Stingray Aptimizer integration, dynamically groups activities for fewer long distance round trips, compresses images to reduce bandwidth required, improves caching for faster repeat visits, and prioritizes actions to give the best possible response time for loading a web page on any browser.

Both Stingray Aptimizer and Stingray Application Firewall can be added to the Stingray Traffic Manager platform using a simple license key upgrade.

How Stingray Traffic Manager works

Stingray Traffic Manager inspects and processes application traffic with full payload inspection and streaming. As requests are received, a range of optimization techniques ensures that 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 controls how individual requests are optimized, routed, and transformed. Traffic management rules may also be created using Java extensions.

Stingray Traffic Manager includes a web-based administration interface that provides powerful real-time and analysis and history for traffic across Stingray Traffic Manager clusters. Alternatively, SOAP APIs and SNMP can be used to integrate the solution into remote management and event monitoring frameworks.



The advanced capabilities in Stingray Traffic Manager can be enhanced using TrafficScript or Java extensions.

Stingray Traffic Manager core and advanced comparison

Functionality	Core	Advanced	Impact on Performance and ROI
Availability	1000 Model	2000, 4000 Models	
Load Balancing	Yes	Yes	Provides Layer 7 traffic management for all applications
Application Acceleration	Yes	Yes	Applications are more efficient, more responsive, and increase ROI
SSL & Compression offload	Yes	Yes	End-to-end security and bandwidth optimization
Web Content Caching	Yes	Yes	In-memory or on-disk caching to reduce load on content servers
RuleBuilder	Yes	Yes	Simple GUI tool for defining policies and resources
TrafficScript	Yes	Yes	The most intuitive traffic routing language available for real-time control of traffic and services
Control API	Yes	Yes	SOAP and Command-Line for integration and remote management with provisioning frameworks
IPv6 Support	Yes	Yes	Support for dual-stack IPv4 and IPv6
Global Load Balancing		Yes	Distribute traffic across multiple sites and compute clouds
Bandwidth Management		Yes	Assured user experience and service quality
Transaction Rate Shaping		Yes	Protect from flash floods and apply limits to incoming requests
Service Level Monitoring		Yes	Assess application performance and respond to demand
Application Auto-Scaling		Yes	Orchestrate right-sizing of applications as workload changes
Application Firewall	Option	Option	Protect against a range of external application threats
Web Content Optimization	Option	Option	Automatic web page optimization to reduce page view times

Bring new services to market more quickly

ADCs are an important part of the modern application platform. They provide key functionality such as security, centralized authentication, rate shaping and queuing, and content modification to support applications. They also support operations such as the gradual introduction of new servers, session upgrades between application generations, and A/B testing. Their monitoring and debugging capabilities also help deliver reliable applications with predictable performance.

Stingray Traffic Manager includes TrafficScript scripting software and a Java API that provide fine-grained control over how traffic is managed. TrafficScript software is designed with application developers in mind, making it far more efficient and easy to use than traditional network or event-based solutions. Stingray Traffic Manager also provides graphical analysis and management tools to give control over the complete ADC infrastructure.

Organizations can use Stingray Traffic Manager to deploy geotargeting, edge authentication, and session failover, all which require a global view of the application cluster. Content manipulation allows rapid web content changes such as the insertion of marketing tags, branding changes, and dynamic watermarking that may be difficult to achieve on the application itself.

“We made the Riverbed application delivery controller the standard web traffic management solution across all our premier websites because it allows us to handle high-demand situations during media and marketing campaigns and also provides full control and flexibility to manage the customer experience, without major software changes.”

Simon Howe, platform specialist for BT's market facing websites

TrafficScript

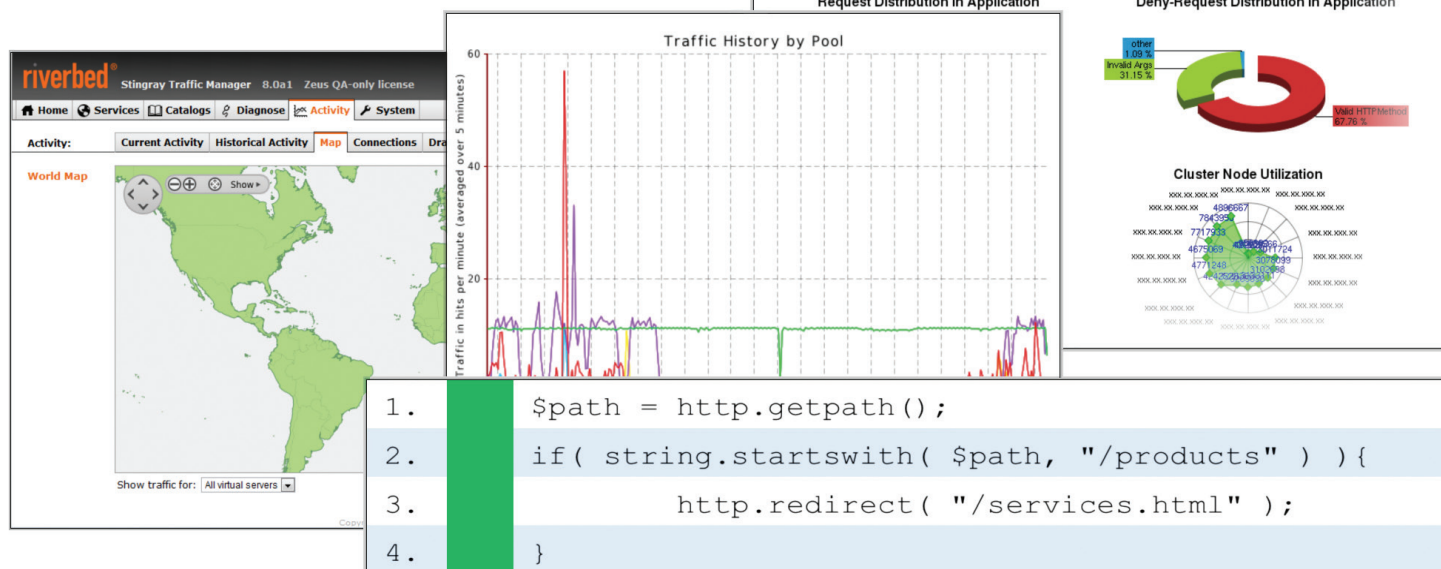
TrafficScript is a sophisticated programming language integrated within the core of Stingray Traffic Manager that enables high performance, highly-configurable control of traffic management policies. TrafficScript rules can control all aspects of how traffic is managed and can choose when and where to apply request rate shaping, bandwidth shaping, routing, compression, and caching to prioritize the most valuable users and deliver the best possible levels of service. It can also help parse complex XML data using XPath in order to make informed routing decisions based on embedded content. TrafficScript also supports the offload and acceleration of the translation between XML variants via XSL Transformations (XSLT).

TrafficScript software is even powerful enough to create rules that transform requests and responses, correct invalid requests, apply security filtering and optimization, and allow complex response rewriting. TrafficScript is easy to use and maintain because it looks like a regular programming language. Examples of how it is used is shared at the Riverbed Community Forum.

Deliver better ROI while maintaining service levels

Consolidation and virtualization projects aim to reduce costs and to improve flexibility and responsiveness. But when services depend on sophisticated components that are not deployed within the virtual platform, the benefits of virtualization may never be completely realized.

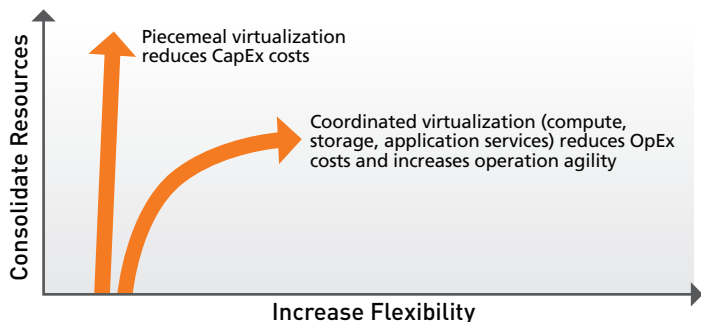
The Stingray 9.0 virtual ADC can be run natively within the virtual infrastructure for greater choice and flexibility when deploying application resources. As compared to external ADC devices, it delivers reduced latency and better overall performance. It is the industry's only complete full-featured virtual ADC with integrated WCO and application firewall, and is supported on the widest range of virtual and cloud platforms.



Powerful application management and visibility tools give users full control over the ADC environment.

“Riverbed’s virtual ADC is the only solution we could deploy in a fully-virtualized IT environment to meet our application development, traffic management and load balancing needs. Bottom line, we found that physical appliances do not work well in a virtualized environment.”

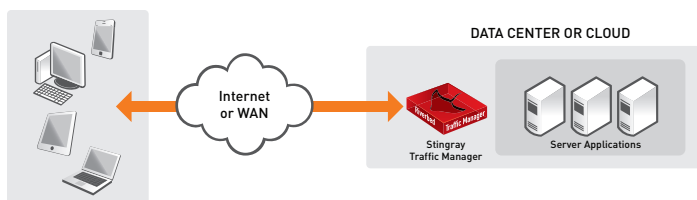
William Moore, executive vice president and chief technology officer, CareCore National



Stingray virtual ADC can be run natively within the virtual infrastructure for greater choice and flexibility when deploying application resources.

Capacity management with auto-scaling

Stingray ADC features an auto-scaling capability that ensures reliable application service delivery by automatically managing traffic changes in real time, distributing traffic among a pool of virtual servers. It can orchestrate the provisioning and rightsizing of applications, helping to migrate traffic across multiple virtual and cloud platforms. Auto-scaling works with system management tools to dynamically manage virtual server resources to aid in growth planning and proactively address real-time traffic demands rather than react to overloaded servers after receiving user complaints.



Stingray Traffic Manager features an auto-scaling capability that orchestrates the provisioning and rightsizing of applications to maintain service levels in virtual and cloud environments.

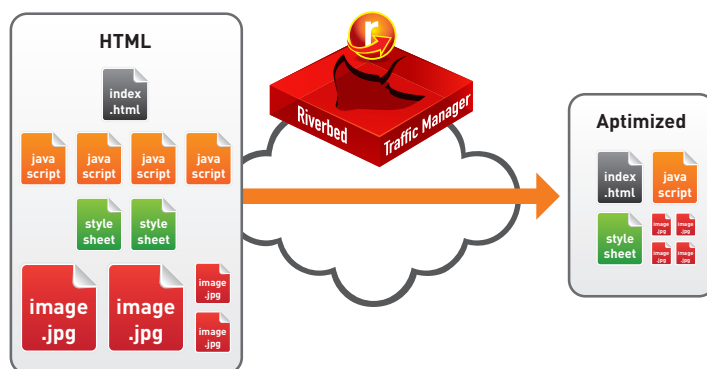
Stingray Optimizer for Traffic Manager

Stingray Optimizer for Traffic Manager delivers automatic WCO technology, marking a step forward in performance tool development. It automatically makes web pages faster without a developer having to optimize the behavior and performance of each web page. Stingray Optimizer does away with the time-consuming and labor-intensive process of optimizing web pages for browsers/browser versions by automatically recognizing device and browser types before optimizing web resources, all without impacting the functionality of the page. It dynamically groups activities for fewer long distance round trips, compresses images to reduce bandwidth required, increases caching for faster repeat visits, and prioritizes actions to give the best possible response time for loading a web page on any browser.

Also available as stand-alone software, the Stingray Optimizer makes Stingray Traffic Manager the industry's only complete high-performance ADC with integrated WCO technology.

"SharePoint.Microsoft.com is a critical communications channel for SharePoint. We teamed up with Optimizer to optimize it for high performance. A faster website improves the visitor's experience, and with some smart use of technology, we can continue to design and build sites in line with industry best practices, while dynamically addressing issues of low bandwidth and high latency. As a result, we can ensure that site visitors all over the world experience the richness of our site, without compromise!"

Tony Tai, SharePoint Senior Product Manager, Microsoft



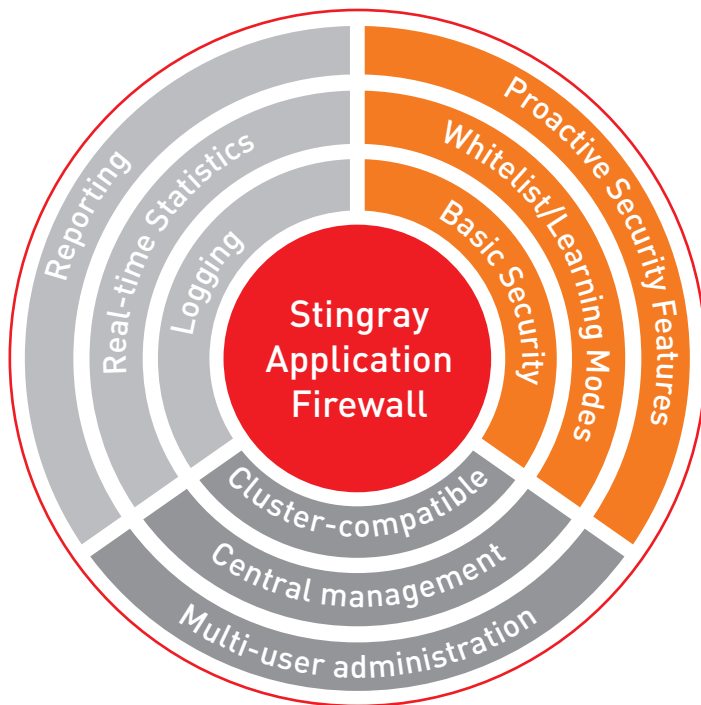
Stingray Optimizer accelerates page load times by up to 4x.

Stingray Application Firewall Add-on

Attacks against applications are increasing in sophistication, and automation makes them increasingly common. These attacks are geared towards discovering and exploiting weak points, not at the network level, but in the application code and framework itself. However, the target of the attacks remains the same – confidential company information.

As part of Stingray Traffic Manager, Stingray Application Firewall Add-on is a sophisticated application firewall for deep application security. It can protect against a range of external threats at the application layer (such as OWASP Top10), secure applications, and meet compliance requirements such as PCI-DSS.

Available as a licensed add-on to Stingray Traffic Manager 9.0 or as virtual or a web server extension, it is the only full-featured application firewall supported in public cloud environments such as Amazon AWS.



Stingray Application Firewall is a comprehensive, scalable software solution that improves application security to help comply with PCI DSS requirements.

“The Riverbed Stingray Application Firewall provides an additional layer of security, giving us peace of mind and optimum protection for our online presence.”

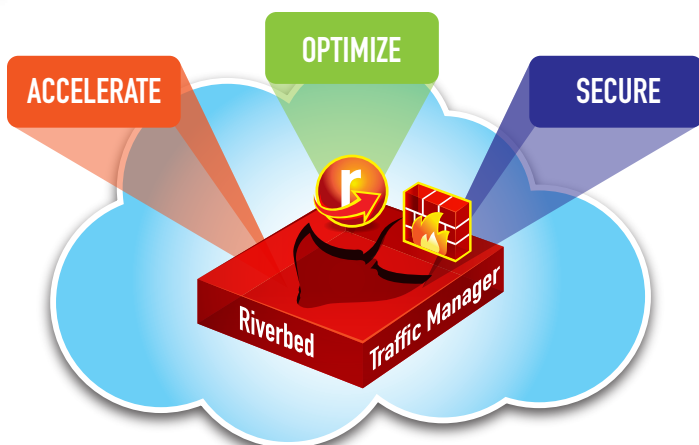
Rob Wilmshurst, CEO, See Tickets

Deployment options

As a pure software solution, Stingray Traffic Manager can be installed on any commodity hardware platform or as a virtual appliance on VMware, Xen, or OracleVM. It can also be installed on any supported cloud infrastructure such as Amazon Marketplace, Joyent, and Rackspace. For maximum deployment flexibility, a simple license key enables Stingray Optimizer and Application Firewall within a single integrated platform.

	Fully integrated or Stand-alone		
	Software	Virtual	Cloud
Stingray Traffic Manager	Yes	Yes	Yes
Stingray Optimizer for Traffic Manager	Yes	Yes	Yes
Stingray Application Firewall for Traffic Manager	Yes	Yes	Yes

Stingray Optimizer can also be deployed as a web server extension to Microsoft SharePoint or Microsoft IIS, and Stingray Application Firewall is also available as a web server extension.



Stingray Traffic Manager 9.0 is the complete solution for application delivery for the data center and the cloud.

Discover Stingray for free

It's easy to test all Stingray ADC capabilities. Just download the Stingray Developer Edition today to find out how:

- **Stingray Optimizer** advanced web content optimization can accelerate enterprise portals and online applications.
- **Stingray Application Firewall** employs business rules to protect applications, mask data, and help achieve compliance and manage cookie privacy and authentication.
- **Stingray Traffic Manager** can help achieve greater ROI from data center consolidation and transformation programs.

The Stingray Developer Edition, available either as pure software, or as a virtual appliance, makes the complete ADC technology platform available to every application developer in an organization, enabling them to utilize Stingray capabilities to develop applications faster, test them in a production-identical environment, and bring them to market more quickly.

Learn more

Contact Riverbed, the IT performance company, for more information on the products and solutions that are right for you. Thousands of companies worldwide trust Riverbed to achieve cost savings and deliver strategic advantage over the competition. Visit www.riverbed.com for more information.

About Riverbed

Riverbed delivers performance for the globally connected enterprise. With Riverbed, enterprises can successfully and intelligently implement strategic initiatives such as virtualization, consolidation, cloud computing, and disaster recovery without fear of compromising performance. By giving enterprises the platform they need to understand, optimize and consolidate their IT, Riverbed helps enterprises to build a fast, fluid and dynamic IT architecture that aligns with the business needs of the organization. Additional information about Riverbed (NASDAQ: RVBD) is available at www.riverbed.com.



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