

Riverbed Stingray Traffic Manager Solution with Juniper Networks Contrail

Riverbed ADC Integration with Contrail's NFV and Service Chaining

Challenge

Combine industry-leading Juniper Networks Contrail and Riverbed Stingray ADC to help customers streamline the implementation of SDN and smoothly transition to software-defined data centers (SDDCs).

Solution

Riverbed Stingray application delivery controller (ADC) comes together with Juniper Networks Contrail, a standards-based, highly scalable network virtualization and intelligence solution for SDN that reduces network complexity, improves flexibility, and responds faster to business needs.

Benefits

- Ability to insert and chain ADC instances in a virtualized network environment, increasing network agility and ensuring faster service insertion
- Ease of ADC service migration in hybrid cloud environments
- Use of Contrail analytics and network monitoring capabilities to complement and assist ADC data sources
- Ability to easily and rapidly scale ADC services for large SDDC deployments

The industry-leading Riverbed Stingray application delivery controller (ADC) is coming together with Juniper Networks® Contrail, a standards-based, highly scalable network virtualization and intelligence solution for software-defined networks (SDN). With this joint solution, organizations will be able to realize reduced network complexity and improved flexibility to respond faster to business needs.

As a Juniper Networks SDN Technology Partner, Riverbed will work with Juniper to help customers implement SDNs and transition to software-defined data centers (SDDCs). These projects will include highly scalable and automated service chaining of virtualized Layer 7 services that enable companies to deliver new network services faster at lower cost and with less risk.

The Challenge

In the era of the cloud, the network is more important than ever. Organizations are looking to the cloud to increase business agility and innovation, but they will need the right solution—one that is simple, open, and agile—to control their cloud networks. They will also need a software-defined networking solution that automates and orchestrates the creation of highly scalable virtual networks, makes it easy to connect clouds and the virtualized resources within them quickly, at scale, and without changes to the underlying physical infrastructure.

The Juniper Networks–Riverbed Solution

Integrated with Juniper Networks Contrail, Riverbed Stingray Traffic Manager is a full performance software and virtual L7 application delivery controller (ADC) that is cloud-aware, as dynamic as the application itself, and able to fit easily into changing environments. It is natively architected for software-defined environments and enables ADC services on the Contrail SDN architecture through automated service chaining for Layer 7 services. Stingray offers the ideal ADC solutions to support SDDCs and accelerate multitier applications quickly and cost-efficiently across any private, public, and hybrid cloud.

With Stingray software running virtually, it fits seamlessly into cloud and data center networks, while also inheriting the enhanced operational benefits of network functions virtualization (NFV)—flexible software lifecycle management, and scale out for redundancy and elasticity. Juniper Networks Contrail completes the NFV solution with SDN control, mitigating the complexity of manually routing traffic through services such as the ADC, and instead facilitating service chaining with its integrated service templates, network policy features, and application programming interfaces (APIs).

The Stingray product family features programmability in the control plane and in the data plane. This is designed to operate alongside and enhance emerging northbound and southbound SDN APIs. As such, these robust capabilities can program the Juniper Networks Contrail Controller with the ability to monitor and analyze the current state of an ADC instance, adjust service configuration and rule processing, and adapt to changes in the underlying network. With adaptable service chaining technology, the Contrail Controller keeps the service traffic of interest flowing through the ADC as it scales the ADC to meet demands.

Features and Benefits

Riverbed and Juniper Networks deliver the following benefits associated with deploying application services in an SDN environment:

- Applications and their underlying infrastructure can be brought to market more quickly through scalable and automated deployment.
- Complexity and cost currently associated with deploying and scaling applications is reduced.
- Elasticity of ADC service deployment is achieved with dynamically right-sized ADCs and by reconfiguring services in a nondisruptive manner.

The combination of Riverbed Stingray and Juniper Contrail offers several customer benefits including:

- Ability to insert and chain ADC instances in a virtualized network environment, thereby increasing network agility and ensuring faster service insertion
- Ease of ADC service migration in hybrid cloud environments
- Use of Contrail analytics and network monitoring capabilities to complement and assist ADC data sources
- Ability to easily and rapidly scale ADC services for large SDDC deployments

These benefits lead to a flexible and agile virtual network infrastructure, and this enables faster, dynamic service deployments, migration and management. For service providers and enterprises, this means better utilization, reduced cost, and new opportunities for customized end-user services.

Solution Components

- Juniper Networks Contrail and Contrail Controller
- Riverbed Stingray Traffic Manager, Riverbed Stingray ADC, Stingray Services Controller (SSC)

Summary—Easing the Way as Networks Move into the Cloud

As customers look to implement a large-scale SDDC, Stingray is uniquely positioned to support high scale automated ADC deployments in a Contrail SDN. This combined Juniper-Riverbed solution is enabled by the Stingray Services Controller (SSC), which delivers an industry first ADC-as-a-service model, and the Contrail SDN Controller that offers automated network infrastructure deployment with service stitching. In this model, the SSC only needs to know where you need a new ADC deployed, and it takes care of the automated installation, licensing, and metering of ADC services. A complete, dedicated ADC is created on demand, with a unique name, control ports, admin credentials, and a license key—ready to be configured to suit the traffic needs of the application via the standard RESTful API.

When it comes to scale, SSC can support the rapid, automated deployment of thousands of ADC instances. Once the SSC-based ADC is available, the Contrail Controller can then establish the network infrastructure required to integrate the ADC instances into the data center. Applications and their underlying infrastructure can be brought to market more quickly through scalable and automated deployment. Complexity and cost currently associated with deploying and scaling applications can be reduced. And, elasticity of ADC service deployment is achieved with dynamically right-sized ADCs and by reconfiguring services in a nondisruptive manner.

Next Steps

For more information about how your organization can benefit from the joint Riverbed-Juniper SDN solution, please visit www.juniper.net or contact your authorized Juniper Networks representative.

About Riverbed

Riverbed delivers application 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 build a fast, fluid, and dynamic IT architecture that aligns with the business needs of the organization.

About Juniper Networks

Juniper Networks is in the business of network innovation. From devices to data centers, from consumers to cloud providers, Juniper Networks delivers the software, silicon and systems that transform the experience and economics of networking. The company serves customers and partners worldwide. Additional information can be found at www.juniper.net.

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