Juniper Networks-Sonus Networks Joint Cloud-Based Unified Communications (UC) Solution

Virtual SBC Solution Enabling Rapid Deployment and Scale-Out of UC and Video Services

Challenge

Service providers are looking to deliver secure and reliable UC and voice services to enterprises on demand, while quickly and dynamically scaling up (or down) to support ever-changing session capacity requirements.

Solution

Juniper Networks Contrail Cloud and Sonus Networks SBC Software Edition (SWe) joint solution can simplify network design, improve scalability and resource utilization, and ensure a quality, real-time communications experience.

Benefits

- Consolidate the network by dynamically orchestrating virtual SBCs to meet changing capacity demands
- Improve resource utilization with a virtual UC workload that only exists when and where needed
- Provide a reliable UC and voice experience with high availability and session prioritization capabilities with the lowest network expense
- Effectively manage virtual environments and services, including analytics

Together, Juniper Networks and Sonus Networks offer a robust solution that allows service providers to dynamically deploy and decommission virtual session border controllers (SBCs) on demand. With this joint solution, providers can make optimal use of network resources, save on valuable data center/point of presence real estate, and deliver the security, resiliency, and flexibility desired to deliver unified communications (UC) services to end users.

The Challenge

As organizations adopt Session Initiation Protocol (SIP) and migrate voice, video, and UC technologies towards a cloud-based implementation, they are seeking a solution that will allow them to simplify network design, increase deployment flexibility, improve the monetization of assets, scale on demand, and seamlessly integrate with existing legacy equipment, all while securing their network and maintaining a consistent and reliable quality of experience for their end users.

Service providers are constantly striving to find new ways to deliver new moneymaking UC services and reliable voice quality experiences to enterprises. Offering cloud-based services allow service providers to deliver highly customizable and flexible solution offerings that can reduce OpEx and CapEx costs and potentially give operators greater control over how traffic traverses the network. The question is how this can best be achieved.

The Juniper Networks-Sonus Networks Joint Cloud-Based UC Solution

Juniper and Sonus have teamed up to jointly deliver an integrated, virtualized solution designed to simplify the way service providers deliver differentiated cloud-based UC and voice experiences to enterprises. Together, Juniper Networks Contrail Cloud and the Sonus Networks SBC SWe simplify network design and ensure a secure and reliable real-time communications experience. Figure 1 provides an overview of this joint solution.

Juniper Networks Contrail, along with OpenStack, simplifies building open, elastic, and extremely optimized UC networks. Contrail will dynamically spin up (or down) Sonus SBC SWes as required by the ever-changing demands of a UC network. Contrail's virtual router provides dynamic networking that automates the reliable and secure connection of multiple SBC SWe instances. Contrail also enables the operator to create service chains of the Sonus SBC SWe with virtualized network functions (VNFs) to create new and secure service offerings. In addition, SDN features, including managed network resource allocation and session prioritization capabilities, help manage better call quality for the end user and enable smart monetization of network assets (as the SBC is only in use when needed and is automatically inserted in the network.)

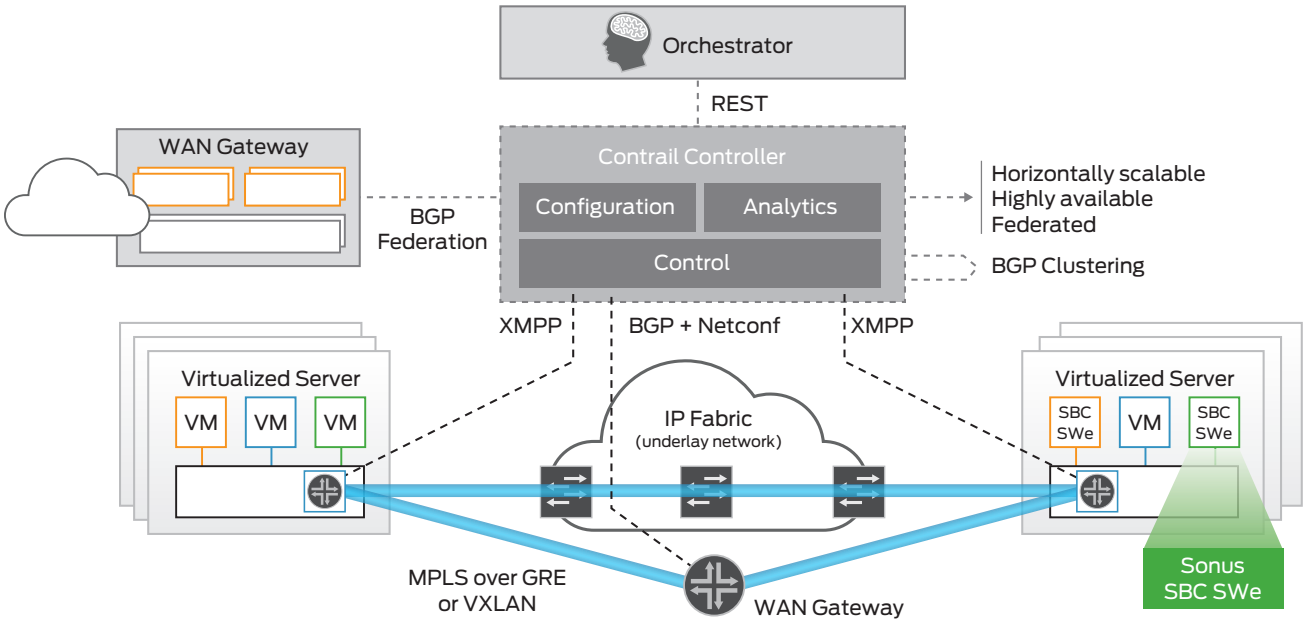

Figure 1: Juniper Networks-Sonus Networks solution for dynamic deployment and decommissioning of virtual SBCs on demand

Sonus SBC SWe provides the flexibility required to support on-premise or hosted cloud deployments. It interworks SIP while protecting the network from security threats with key features that include distributed denial of service (DDoS) and denial of service (DoS) attack prevention, network topology hiding, and encryption of voice and data traffic. In addition, least cost routing features and centralized management services help to significantly reduce service provider OpEx costs and increase the quality of experience for end users.

Features and Benefits

Transcoding

- Deliver consistent real-world performance and scalability with embedded transcoding processing
- Reduce network bandwidth by translating a high-bandwidth codec to a low-bandwidth codec
- Improve voice/video quality by translating communications into a codec natively supported by an end-user's device

Orchestration

- Dynamically spin up (or down) virtual SBC sessions (distributed and balanced call processing) as needed
- Monitor virtual machines (VMs)
- Perform flow analytics

Security

- Prevent DDoS/DoS attacks
- Hide network topology
- Encrypt voice and data traffic

Solution Components

Sonus Networks delivers a full set of virtualized offerings through its Sonus IQ platform. Along with the virtual SBC (SBC SWe), which can quickly and easily scale to support hundreds to thousands of sessions, Sonus IQ offers additional virtual products, including the PSX (dial plan integration, least cost routing and centralized policy and routing solutions), and EMS (performance monitoring and network analytics solutions). For more details on Sonus IQ, visit www.sonus.net/en/architectures/sonus-iq-for-service-providers.

Juniper Networks Contrail Networking is a simple, open, and agile SDN solution that automates and orchestrates the creation of highly scalable virtual networks. These virtual networks let you harness the power of the cloud—for new services, increased business agility, and revenue growth. Contrail Networking creates virtual networks that integrate seamlessly with physical networks.

Juniper Networks Contrail Cloud Platform is an integrated turnkey cloud management platform that is hardened from open source technologies including OpenStack. It simplifies building open, elastic, and extremely optimized cloud infrastructures. Contrail Cloud Platform combines the automation capabilities of Contrail Networking with Juniper's OpenStack distribution for SDN/NFV and cloud network automation, enabling secure and scalable multitenancy by abstracting the tenant networks and allowing tenants to manage their networks based on APIs and telemetry of application conditions.

For more details on Juniper Contrail, visit www.juniper.net/us/en/products-services/sdn/contrail.

Summary—Juniper and Sonus Deliver a Highly Scalable, Reliable, and Secure Virtualized Solution for UC Applications

Service providers are constantly striving to find new ways to deliver new UC services and reliable voice quality experiences to enterprises. Together, Juniper and Sonus deliver a cost-effective , virtualized SBC solution that enables providers to offer a flexible, secure, and differentiated cloud-based UC communication experience for their enterprise customers. With this joint solution, service providers can consolidate the network by dynamically orchestrating virtual SBCs to meet changing capacity demands; improve resource utilization with a virtual UC workload that only exists when and where it is needed; provide a reliable UC and voice experience with high availability and session prioritization capabilities with the lowest network expense; and effectively manage virtual environments, including analytics.

Next Steps

For more information about how your organization can benefit from the Juniper Networks-Sonus Networks joint cloud-based UC solution, or to schedule a demo, please contact your authorized Juniper Networks or Sonus Networks representative.

About Sonus Networks

Sonus brings intelligence and security to real-time communications. By helping the world embrace the next generation of cloud-based SIP and 4G/LTE solutions, Sonus enables and secures latency-sensitive, mission critical traffic for VoIP, video, instant messaging, and online collaboration. With Sonus, enterprises can give priority to real-time communications based on smart business rules, while service providers can offer reliable, comprehensive, and secure on-demand network services to their customers. With solutions deployed in more than 100 countries and nearly two decades of experience, Sonus offers a complete portfolio of hardware-based and virtualized session border controllers (SBCs), Diameter Signaling Controllers (DSCs), VellOS capabilities, policy/routing servers, and media and signaling gateways. For more information, visit www.sonus.net or call 1-855-GO-SONUS.

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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