

# The Juniper Networks – AudioCodes Solution

Leveraging Contrail SDN and NFV Capabilities to Deliver a Virtualized SBC Solution with AudioCodes

## Challenge

Service providers and enterprises alike want to improve their ability to deliver new services quickly and efficiently, as well as leverage dynamic resource management to offer better call quality—all at a lower cost.

## Solution

Integrating Juniper Networks Contrail Networking platform with AudioCodes' SBC solutions creates an NFV-based, highly scalable network virtualization and intelligence solution that reduces network complexity, improves flexibility, and responds rapidly to business needs.

## Benefits

- Improve network agility while ensuring higher voice call quality by inserting and chaining SBC Virtualized Network Function instances in a virtualized network
- Support multiple enterprise customers with a virtualized multitenant SBC in the cloud
- Reduce CapEx and OpEx by elastically and dynamically scaling capacity up and down

Working together, Juniper Networks and AudioCodes offer a comprehensive virtualized session border controller (SBC) solution that delivers on the value of Network Functions Virtualization (NFV) for both service providers and enterprises.

Leveraging AudioCodes' 20 years of experience in telecommunications delivering field-proven VoIP solutions combined with Juniper Networks® Contrail, a leading cloud networking and service orchestration platform, the joint solution gives customers a superior virtualized unified communications experience that makes optimal use of network resources.

## The Challenge

Organizations are increasingly looking to migrate their communications efforts to the cloud to achieve greater flexibility for resource utilization while reducing CapEx and OpEx by virtualizing communication server components.

Realizing this vision, however, requires dynamic control of network routing and session priority—for instance, implementing a policy to route all VoIP traffic generated by a specific un-authenticated source or by one matching a specific profile through a DPI application, while all other VoIP traffic is allowed to flow directly to the SBC.

## The Juniper Networks – AudioCodes Solution

When integrated with Juniper Networks Contrail, the AudioCodes Access Session Border Controller (SBC) helps service providers and enterprise customers achieve this objective.

The AudioCodes Access SBC, which functions as a VNF both in hosted cloud and on-premise virtualized environments, supports hosted business communication deployments. The solution integrates with the service provider Softswitch and communicates with Juniper Networks Contrail for traffic routing decisions as well as prioritization of specific sessions over other sessions or data.

In an on-premise configuration, the AudioCodes Enterprise Session Border Controller (E-SBC) can run as a vE-CPE in the cloud or on any on-premise general-purpose server, providing functions such as security, redundancy, resiliency, traffic offload, SIP trunk termination—and least-cost routing. By using the combined solution, service providers and enterprises can leverage SDN and NFV functionality to achieve higher call quality through managed network resource allocation. The solution also provides greater flexibility as well as lowers CapEx and OpEx.



## Solution Components

**AudioCodes:** AudioCodes offers a broad range of solutions for both service provider and enterprise deployments, all built around the company's field-proven VoIP product offering that includes SBCs, digital and analog media gateways, IP phones, and a diverse suite of communications and management software applications.

**Juniper Networks Contrail:** The Contrail product family includes two primary components. Juniper Networks Contrail Networking is a simple, open, and agile SDN solution that automates and orchestrates the creation of highly scalable virtual networks, while Juniper Networks Contrail Cloud Platform is a cloud orchestration and management solution.

### Typical Deployments

- Medium to large enterprises
- vE-CPE for small to large enterprises
- Service provider hosted communications services
- Branch survivability
- Microsoft Lync environments
- BroadSoft environments

### Feature Highlights

#### Security

- VoIP firewall and deep packet inspection
- Encryption and authentication
- Topology hiding
- Traffic separation

#### Interoperability

- Wide ITSP and PBX interoperability
- Transport mediation
- Header manipulation
- Extensive transcoding and vocoders
- NAT traversal

#### Quality of Experience

- VoIP prioritization
- Packet loss concealment
- Signaling and media failover
- Fixed and dynamic gain control
- Full QoE monitoring

## Summary—Juniper and AudioCodes Deliver Highly Scalable Network Virtualization and Intelligence Solution

Working together, Juniper and AudioCodes are demonstrating the value of NFV for service providers and enterprises with a virtualized SBC solution networked with Contrail.

### Next Steps

For more information about how your organization can benefit from the Juniper Networks – AudioCodes solution, please visit [www.juniper.net](http://www.juniper.net) or contact your authorized Juniper Networks representative.

### 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](http://www.juniper.net).

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