# SMART, SECURE ROUTING THAT DOES EXACTLY WHAT YOUR BUSINESS NEEDS

Service Overview

The Session Smart Router takes distributed, software-defined routing to an entirely new level. This innovative networking solution enables enterprises and service providers to build service-centric fabrics that deliver breakthroughs in simplicity, security, performance, and savings. And most importantly, it creates a networking environment that delivers the agility businesses need to move with their customers and outpace their competitors
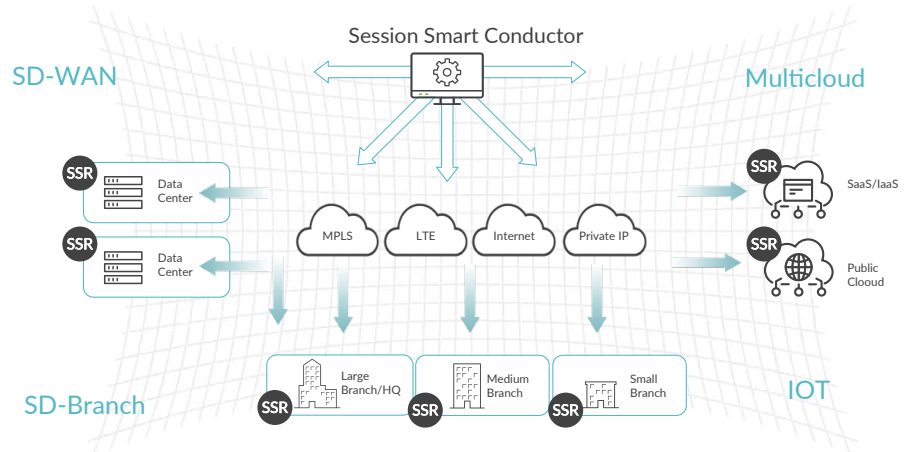
Product Components

The platform is comprised of two primary components: the Session Smart Router and the Session Smart Conductor. Together, they form a single logical control plane that is highly distributed, and a data plane that is truly session-aware. Together they support wide range of deployment models scaling from a small branch office to a high capacity edge router to a hyper-scale software-defined data center.

Session Smart Router

The Session Smart Router combines a service-centric, control plane and a session aware data plane to offer IP routing, feature-rich policy management, improved visibility and proactive analytics.

Session Smart Conductor

The Session Smart Conductor is a centralized management and policy engine that provides orchestration, administration, zero-touch provisioning, monitoring, and analytics for distributed Session Smart Routers—while maintaining a network-wide, multi-tenant service, and policy data model.

Category	Features
System and Network Services	IPv4, SNAT/DNAT, Destination NAPT, Dynamic NAT Change Handling, Shared NAT Pool, Unknown/wildcard Addresses, SSH, High Availability, Inter-Node Redundancy, Overlapping IP Addresses, Multiple IP Addresses per Network Interface, Multipoint SVR, IPv6 SVR
Routing	Secure Vector Routing, Location Independent Routing via Waypoints, BGPv4, BGP Multi-Path, BGP Route Reflector, BGP Graceful Restart, BGP over SVR, BGP Route Map, BGP Prefix List, BFD, Policy based Routing, ICMP Ping and Blackhole, Ping over SVR, DHCP Client, DHCP Relay, DHCP Server per Interface, DHCP Server Extended Config, DHCPv6 PD, DNS Client, PPPoE, Vector based Path Selection, OSPFv2, Proxy ARP
Forwarding and QoS	IPv4/IPv6, Per Flow Policing and Shaping, Packet Marking, Path MTU Discovery, LTE Support, T1 Support
Security	Distributed and Automated Access Control by Service, Finegrained Segmentation/ Tenancy, Distributed Stateful Firewall, Per Session Payload Encryption (AES-256, AES-128), Per Session/Route Authentication (HMAC-SHA1, HMAC-SHA256, HMAC-SHA-256-128), Adaptive Encryption, Rekeying, ICSA Network Firewall Certified, FIPS 140-2 Validated, ICSA PCI DSS Compliance, Enhanced Replay Attack Protection, IPSec, IKEv2, Extended Firewall Pinhole
Classification	Per Session Classification by Application Type, QoS and Security Policy Enforcement, HTTPS Identification, O365 Classification and Rollup, SIP ALG
Session	Load Balancing using Proportional and Hunt, Multi-homing, Transit Mode, Session Migration, Session Duplication, Session Duplication for non-SVR, Session Duplication for Inter-Node Links, MOS for VoIP, Path of Last Resort, Session Optimization, Session Reliability
Analytics	Per Session IPFIX Records, Ability to Access Rich Set of Analytics, Monitoring and Alarms from GUI, REST and NetConf/Yang, Time Sync, Customizable Charts, Out- of- Path Monitoring, SNMPv2 Standard Traps, SNMP SSR Traps, Inline Flow Performance Monitoring
Cloud Platforms	OpenStack, vCloudDirector, AWS, Azure, Google Cloud
Platform Environments	Bare Metal, Virtual Machine, Linux User-Space
Hypervisors	KVM, VMWare ESXi
Operating Systems	CentOS 7, Red Hat Enterprise Linux 7
AAA	Multi-User Support, LDAP
Configuration	Conductor, GUI, CLI, NetConf/Yang, REST, Dynamic Reconfiguration, Edit/Verify, Import/Export/Merge, Upgrade Rollback, Patch Availability, Maintenance Mode
Faults and Alarms	Conductor, GUI, CLI, NetConf/Yang, REST, Sampled Data, Alarm History, Alarm Topology Filtering, Path Alarm Hierarchy

Hardware Recommendation

The Session Smart Router supports a wide range of deployment models including scaling from a small branch office to a high capacity edge router to a hyper-scale, software-defined data center.

Session Smart Router

Throughout (IMIX)	Hardware Recommendation
1-2 Gbps	4C ATOM/8GB RAM
4 Gbps	8C ATOM/16GB RAM
10 Gbps	8C ATOM/32GB RAM
20 Gbps	12C ATOM/128GB RAM
80 Gbps	22C ATOM/256GB RAM

Session Smart Conductor

Deployment	Number of Managed Routers	Hardware Recommendations
Bare Metal	1-10	2C XEON/8GB RAM
	10-25	4C XEON/8GB RAM
	25-100	8C XEON/16GB RAM
	100-500	12C XEON/32GB RAM
	500-1000	16C XEON/64GB RAM
AWS	1-10	c5.xlarge
	10-25	c5.2xlarge
	25-250	c5.4xlarge
	250-1000	c5.9xlarge
Azure	1-10	F4s v2
	10-25	F8s v2
	25-250	F16s v2
	250-1000	F32s v2
Google	1-10	Gen: First, Custom: 4 vCPU/8GB RAM
	10-25	n1-highcpu-8
	25-250	Gen: First, Custom: 16 vCPU/32GB RAM
	250-1000	Gen: First, Custom: 32 vCPU/64GB RAM

Juniper Service and Support

Juniper ensures operational excellence by optimizing the network to maintain required levels of performance, reliability, and availability. For more details, please visit **www.juniper.net.**

About Juniper Networks

Juniper Networks brings simplicity to networking with products, solutions and services that connect the world. Through engineering innovation, we remove the constraints and complexities of networking in the cloud era to solve the toughest challenges our customers and partners face daily. At Juniper Networks, we believe that the network is a resource for sharing knowledge and human advancement that changes the world. We are committed to imagining groundbreaking ways to deliver automated, scalable and secure networks to move at the speed of business.

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