DATA SHEET

Brocade Session Director

Highlights

- Extends the capabilities of Brocade Packet Brokers to deliver subscriber, session, and network-aware traffic optimization for monitoring and analytics tools
- Designed for 5G and IoT scale, delivering filtering and load-balancing capabilities based on diverse mobility attributes, including IMSI, IMEI, APN, and RAT
- Delivers scale and feature extensibility, while simplifying deployment and management with a software-defined architecture

Software-Defined Session Intelligence for Scalable, On-Demand Network Visibility

As the world's leading service providers transform their networks from traffic-delivery pipes into agile and scalable platforms for service innovation, they are increasingly relying on an ecosystem of out-of-band analytics tools to monitor, orchestrate, secure, and monetize their networks. Out-of-band analytics tools in turn depend on specialized "network visibility" infrastructure—commonly known as Network Packet Brokers (NPBs)—to aggregate, replicate, and forward relevant traffic flows to them for analysis.

Exponential growth in IP traffic is driving service providers to scale their monitoring and analytics infrastructure. Yet the escalating costs to achieve scale are not sustainable. Service providers need mechanisms to extract greater productivity from their existing tools to contain costs and maximize returns on their investments. They also need to modernize their networks and improve service agility to remain competitive in the marketplace. To this end, service providers are adopting Software-Defined Networking (SDN), Network Functions Virtualization (NFV), and API-driven architectures—and they expect their network visibility infrastructure to follow suit. With Brocade® Session Director, a carrier-grade network visibility solution, service providers can meet these challenges and cost-effectively evolve their monitoring and analytics infrastructure.

Real-Time Network Visibility and Advanced Traffic Optimization at Scale

Brocade Session Director is a scalable software application deployed on commodity server hardware. It works in tandem with Brocade MLXe Packet Brokers to deliver mobility-aware traffic correlation, filtering, and load-balancing capabilities. By inspecting mobile traffic flows, Brocade Session Director can make dynamic, session-aware forwarding decisions that are then enforced in packet broker nodes.

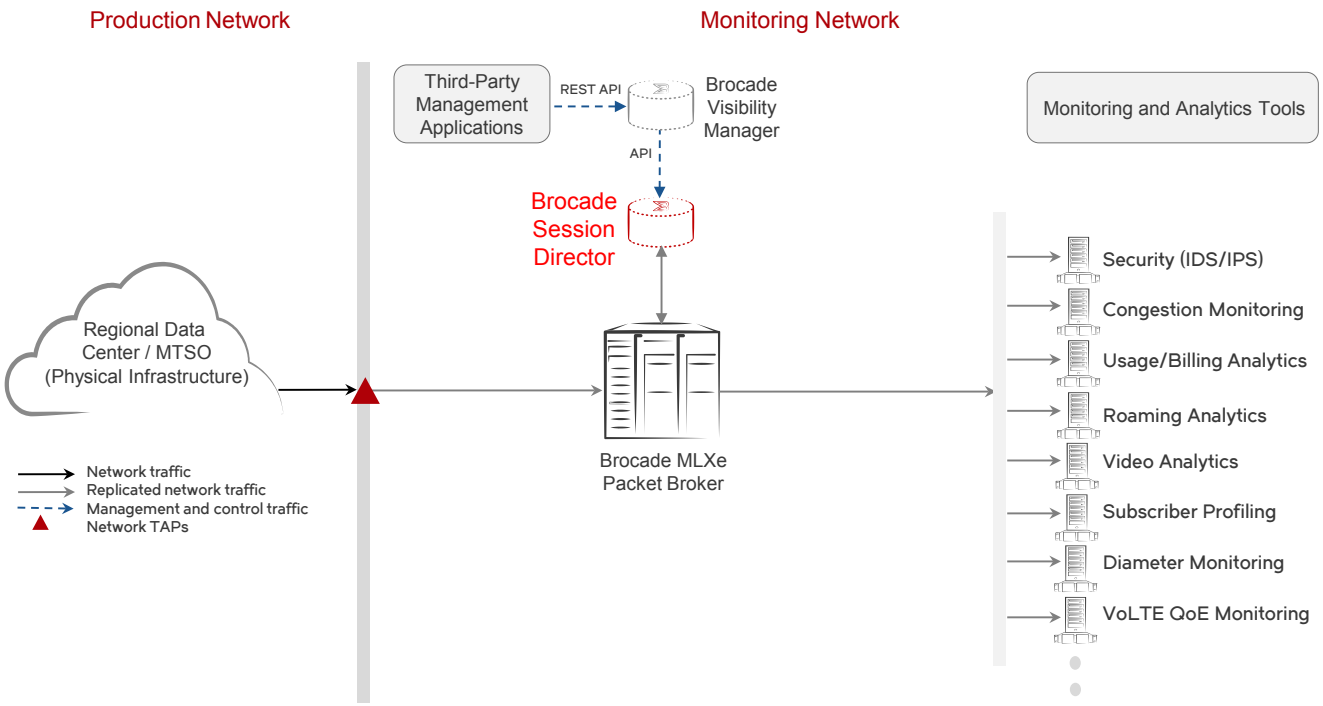

Figure 1: Brocade Session Director deployment architecture.

This next-generation network visibility solution enables service providers to extract maximum productivity from their monitoring and analytics infrastructure at minimal cost. In addition, Brocade Session Director addresses key technology requirements with the ability to:

- Filter, load balance, and forward only relevant traffic to each recipient tool with session, subscriber, network, and device awareness
- Scale to support exponential traffic growth and significant variance in traffic patterns
- Intercept, aggregate, filter, optimize, and forward traffic flows from both physical and virtual networking infrastructures

Closed-Loop Deployment Architecture

Brocade Session Director is deployed in a closed-loop architecture with Brocade MLXe Packet Brokers to deliver subscriber, session, and network-aware filtering and load-balancing capabilities for mobile networks. Mobile bearer and control traffic flows are forwarded by the Brocade MLXe Packet Broker to Brocade Session Director, which correlates, filters, and load balances flows, and then redirects traffic to the Brocade MLXe Packet Broker for delivery to analytics tools (see Figure 1).

Reduced Scaling Costs

Brocade Session Director enables mobile operators to minimize the scaling costs for their monitoring and analytics tools infrastructure as data volumes grow. It does so by providing network, subscriber, and session-aware traffic selection capabilities, delivering only relevant traffic to every tool in the analytics infrastructure. By offloading resource-intensive correlation and load-balancing functions, Brocade Session Director also helps operators realize the full ROI potential of their tool investments.

With its agile, software-defined architecture, Brocade Session Director simplifies scale and feature additions while shortening acquisition and deployment cycles. This allows mobile operators to efficiently monitor, secure, analyze, and monetize their network infrastructures.

On-Demand Network Visibility

With Brocade Session Director, service providers gain software-defined session intelligence for scalable, on-demand network visibility. Key features of this solution include:

- GTP and RTP session correlation (of bearer and control flows)
- Filtering and load balancing traffic based on:
  - International Mobile Subscriber Identity (IMSI)
  - International Mobile Equipment Identity (IMEI)
  - Access Point Name (APN)
  - Radio Access Type (RAT)

Brocade Session Director Specifications

Recommended Minimum Server Configuration	CPU: 16 core 3.2 GHz processor (example: Intel E5 2670 v3 or higher) RAM: 256 GB HDD: 1 TB Ports: 2×40 GbE NICs (example: Intel XL710) 2×10 GbE NICs (example: Intel 8259) Operating system: CentOS 7.1
Performance (per instance)	Maximum system throughput: 80 Gbps Number of subscribers: 20 million Number of bearer sessions: 50 million
Clustering	Support for stateful clustering of up to four Brocade Session Director instances with maximum aggregate throughput of 320 Gbps per cluster
Management	CLI-based management interface

Brocade Session Director Ordering Information

Part Number	Description
BR-NVA-SD	Brocade Session Director with expert features
NVA-SD-SVV-SW-1	Essential Application Support 24×7—1 year, Brocade Session Director
NVA-SD-SVV-SW-2	Essential Application Support 24×7—2 years, Brocade Session Director
NVA-SD-SVV-SW-3	Essential Application Support 24×7—3 years, Brocade Session Director
NVA-SD-SVV-SW-4	Essential Application Support 24×7—4 years, Brocade Session Director
NVA-SD-SVV-SW-5	Essential Application Support 24×7—5 years, Brocade Session Director

Brocade Network Visibility Solutions

Brocade Network Visibility solutions help mobile operators monitor, secure, analyze, and monetize their physical and virtual networks at scale, as they begin their journey to 5G. With programmable hardware packet brokers and the industry's first full-featured software packet broker, Brocade delivers a best-in-class network visibility solution built for the most demanding networks.

Brocade Global Services

Brocade Global Services has the expertise to help organizations build scalable, efficient cloud infrastructures. Leveraging 20 years of expertise in storage, networking, and virtualization, Brocade Global Services delivers world-class professional services, technical support, and education services, enabling organizations to maximize their Brocade investments, accelerate new technology deployments, and optimize the performance of networking infrastructures.

Affordable Acquisition Options

Brocade Capital Solutions helps organizations easily address their IT requirements by offering flexible network acquisition and support alternatives. Organizations can select from purchase, lease, Brocade Network Subscription, and Brocade Subscription Plus options to align network acquisition with their unique capital requirements and risk profiles. To learn more, visit www.Brocade.com/CapitalSolutions.

Maximizing Investments

To help optimize technology investments, Brocade and its partners offer complete solutions that include professional services, technical support, and education. For more information, contact a Brocade sales partner or visit www.brocade.com.

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