BROADCOM

SOLUTION BRIEF

Experience-Driven NetOps

Our industry-leading network monitoring software now expands traditional visibility beyond the network edge and into ISP, SaaS, and cloud provider networks. Today, DX NetOps and AppNeta® combine active and passive monitoring approaches in order to provide continuous, end-to-end visibility.

With these offerings, operations teams can have a complete understanding of network delivery from the end-user perspective—across any device and any network, anywhere in the world. We call this Experience-Driven NetOps. This brief details the features and capabilities of the solution.

COMPONENT	ROLE
Digital Experience	• Automatic integration of monitoring points and network paths, including geolocation and other key information • Unified alarm-to-performance triage workflows simplifies access to key metrics • Baseline monitoring, including deviation from normal and alerting time-over-threshold alarming • Alarm noise reduction through correlation of related events • Continuous, end-to-end, lightweight performance validation of network delivery via TruPath™ technology • Behind the firewall (inside-out) app performance visibility • Selenium-based synthetic transaction monitoring • Multi-page performance, DNS, and resource waterfall charting • Apdex scoring for business-critical application experience • Automatic network diagnostics for root cause analysis • Active monitoring for independent data and voice traffic metrics
End-User Monitoring	• End-to-end network delivery path visibility across owned and unowned networks • Per-user and per-location wired and wireless connectivity monitoring • Automatic end-user geolocation with advanced host information • Performance indexed by username and hostname
Inventory/ Topology Discovery	• Automated discovery to model network infrastructure • Automated/logical grouping by technology, location, etc. • High-scale monitoring (500,000+ devices) • Support for 300,000+ SD-WAN tunnels • Support for 4M+ interfaces • Relationship discovery (LAN, WAN, MPLS, Wireless, etc.) • Broadest coverage and support for industry-leading network equipment • Support for SONiC devices

COMPONENT	ROLE
Fault/Availability Management	• Multi-landscape domain correlation • Patented root cause analysis and fault isolation • Health and availability monitoring • Advanced event correlation and alerting for traditional and software-defined network architectures • Policy-based alarm notification and forwarding • Support for SDN, SD-WAN, NFV, and IoT environments • Streamline network management via intuitive user interface • Policy-based automation • Patented intelligence for relationship/dependency mapping • Comprehensive service level agreement (SLA) reporting • Embedded root case for packet drop events • Integration with service desk • Support for Syslog events and alarms
Capacity/Performance Analytics	• Fault tolerant data collection • Multi-tiered data collection for rollups and fast analysis • Performance dashboards for broad variety device types • Intelligent analytics and high-scale visualization • High-scale monitoring with optimized collection and storage • Configurable and dynamic capacity projections • Detailed buffer statistics tracking (SONiC) • Situations to watch, device availability • Top N talker interfaces, network components, CPU, and memory • WAN interface reports • Packet loss, latency, and jitter reports • Trend - interface - utilization - average • On-demand/multi-metric trend reports • Service-level testing (IPSLA, Y.1731) • Network configuration policy violation reports
Telemetry	• Real-time insights into network performance via modern network telemetry collection • Real-time network congestion triage and visibility via buffer statistics tracking (BST) monitoring • Real-time packet loss triage via Mirror on Drop for immediate notification of drop reason, application impact, and source device
Flow Analysis	• DPI-based automatic identification of over 2,000 applications • Application traffic data flow collection • Analysis and reporting • Traffic anomaly detection • Top talkers, top conversations, ToS • Support for modern flow technologies (IPFIX, cFlow, NetFlow version 9, and NBAR2) • Modern visualizations and operations-focused workflows • Built on latest cloud-native, microservice-based deployment technologies • High-scale data pipeline in Kafka supporting third-party data feeds • Stateless and automatic horizontal scaling
NetOps Portal	• Experienced workflow for easy triage • Single portal across alarms, fault, performance, flows • Fewer clicks and faster issue resolution • Global search speed—10 seconds typical • Enhanced alarm noise reduction with SDN event filtering • Live alarm console with support for 20,000 active alarms

COMPONENT	ROLE
Network Configuration Management (NCM)	• Configuration monitoring and management • Device configuration repository • Configuration change tracking • Compliance auditing • Reports on non-compliant device configurations, including violated patterns and violated or missing lines
Industry-leading Standards	• Multi-vendor, multi-technology, multi-protocol support • Universal SNMP (version 1, 2c, and 3) support • Open APIs for easy sharing of data and automation
Security Best Practices	• Centralized security configuration with alerting for out-of-compliance settings • Secure communication, encryption, and authentication for all integrated components • Support for proxy servers to further secure communication between components
SDx and Cloud Coverage	• SD-WAN: 128 Technology, Cisco Meraki, Fortinet, HPE, Juniper, Nokia Nuage, Silver Peak, VeloCloud, Versa, Viptela, and VMware • SDDC: Cisco ACI, Nokia Nuage, VMware NSX-T, and VMware vSphere • Cloud: Amazon Web Services (AWS) • Wireless: Cisco Meraki, Aruba Central • Deliver operational assurance. Identify vulnerabilities and bottlenecks that could impact service delivery. • Reinvent service delivery. Accelerate and tailor revenue-generating services in real time. • Protect investments. Extend existing Broadcom Software infrastructure management investments to support SDN/NFV and cloud architectures.

BROADCOM®
connecting everything®

To learn more, visit our Experience-Driven NetOps page.

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