

## DX NetOps High-Scale Operations Monitoring Technical Specifications

With a combination of real-time performance monitoring and machine-learning driven analytics, Broadcom's DX NetOps comprehensively simplifies modern network complexity through high scale, unified network monitoring. The solution enables full-stack analytics for assuring traditional, and software-defined and cloud architectures by converting inventory, topology, device metrics, faults, flow, and packet analysis into actionable intelligence for network operations teams.

The platform is complemented by our AIOps solution that enables IT teams to establish proactive, autonomous remediation capabilities across applications, infrastructure, and networks that fuel superior user experiences.

The main components and feature support of the DX NetOps network monitoring solution are summarized below:

Component	Role
Inventory/Topology Discovery	<ul style="list-style-type: none"> <li>Automated discovery to model network infrastructure</li> <li>Automated/logical grouping by technology, location, etc.</li> <li>High-scale monitoring (500,000+ devices)</li> <li>Support for 300,000+ SD-WAN tunnels</li> <li>Support for 4M+ interfaces</li> <li>Relationship discovery (LAN, WAN, MPLS, Wireless, etc.)</li> <li>Broadest coverage and support for industry-leading network equipment</li> <li>Support for SONiC devices</li> </ul>
Fault/Availability Management	<ul style="list-style-type: none"> <li>Patented root cause analysis and fault isolation</li> <li>Health and availability monitoring</li> <li>Advanced event correlation and alerting for traditional and software-defined network architectures</li> <li>Policy-based alarm notification and forwarding</li> <li>Support for SDN, SD-WAN, NFV, IoT environments</li> <li>Streamline network management via intuitive user interface</li> <li>Policy-based automation</li> <li>Patented intelligence for relationship/dependency mapping</li> <li>Comprehensive service level agreement (SLA) reporting</li> <li>Embedded root case for packet drop events</li> <li>Integration with service desk</li> <li>Support for Syslog events and alarms</li> </ul>
Capacity/Performance Analytics	<ul style="list-style-type: none"> <li>Multi-tiered data collection for rollups and fast analysis</li> <li>Performance dashboards for broad variety device types</li> <li>Intelligent analytics and high-scale visualization</li> <li>High-scale monitoring with optimized collection and storage</li> <li>Configurable and dynamic capacity projections</li> <li>Detailed buffer statistics tracking (SONiC)</li> <li>Situations to watch, device availability</li> <li>Top N talker interfaces, network components, CPU, and memory</li> <li>WAN interface reports</li> <li>Packet loss, latency, and jitter reports</li> <li>Trend - interface - utilization - average</li> <li>On-demand/multi-metric trend reports</li> <li>Service-level testing (IPSLA, Y.1731)</li> <li>Network configuration policy violation reports</li> </ul>

Flow Analysis	<ul style="list-style-type: none"> <li>• Application traffic data flow collection</li> <li>• Analysis and reporting</li> <li>• Traffic anomaly detection</li> <li>• Top talkers, top conversations, ToS</li> </ul>
NetOps Portal	<ul style="list-style-type: none"> <li>• Experienced workflow for easy triage</li> <li>• Single portal across alarms, fault, performance, flows</li> <li>• 86% fewer clicks*</li> <li>• 38X faster issue resolution*</li> <li>• Global search speed—10 seconds typical</li> <li>• Enhanced alarm noise reduction with SDN event filtering</li> <li>• Live alarm console with support for 20,000 active alarms</li> </ul>
Network Configuration Management (NCM)	<ul style="list-style-type: none"> <li>• Configuration monitoring and management</li> <li>• Device configuration repository</li> <li>• Configuration change tracking</li> <li>• Compliance auditing</li> <li>• Reports on non-compliant device configurations, including violated patterns and violated or missing lines</li> </ul>
Telemetry	<ul style="list-style-type: none"> <li>• Real-time insights into network performance via modern network telemetry collection</li> <li>• Real-time network congestion triage and visibility via buffer statistics tracking (BST) monitoring</li> <li>• Real-time packet loss triage via Mirror on Drop for immediate notification of drop reason, application impact, and source device</li> </ul>
Industry-leading Standards	<ul style="list-style-type: none"> <li>• Multi-vendor, multi-technology, multi-protocol support</li> <li>• Universal SNMP (v1, v2c, v3) support</li> <li>• Open APIs for easy sharing of data and automation</li> </ul>
Security Best Practices	<ul style="list-style-type: none"> <li>• Centralized security configuration with alerting for out-of-compliance settings</li> <li>• Secure communication, encryption, and authentication for all integrated components</li> <li>• Support for proxy servers to further secure communication between components</li> </ul>
SDx and Cloud Coverage	<ul style="list-style-type: none"> <li>• SD-WAN: 128 Technology, Cisco Meraki, HPE, Juniper, Nokia Nuage, Silver Peak, VeloCloud, Versa, Viptela, and VMware</li> <li>• SDDC: Cisco ACI, Nokia Nuage, and VMware vSphere</li> <li>• Cloud: Amazon Web Services (AWS)</li> <li>• Deliver operational assurance. Identify vulnerabilities and bottlenecks that could impact service delivery.</li> <li>• Reinvent service delivery. Accelerate and tailor revenue-generating services in real time.</li> <li>• Protect investments. Extend existing CA infrastructure management investments to support SDN/NFV and cloud architectures.</li> </ul>
AIOps Capabilities	<ul style="list-style-type: none"> <li>• Algorithmic noise reduction</li> <li>• Sequence mining, various NLP techniques, TF-IDF, textual and temporal feature extraction, Cosine distance</li> <li>• Network-as-a-service modeling</li> <li>• Contextual log analytics</li> </ul>

\*Source:

- [https://www.principledtechnologies.com/Ca/IM2\\_vs\\_SolarWinds\\_0912.pdf](https://www.principledtechnologies.com/Ca/IM2_vs_SolarWinds_0912.pdf)
- [https://www.principledtechnologies.com/Ca/IM2\\_vs\\_IM1\\_0912.pdf](https://www.principledtechnologies.com/Ca/IM2_vs_IM1_0912.pdf)



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