DX NetOps

Key Benefits

- **Boost service levels.** Harness the predictive insights and automation that enable you to automatically identify and remediate network issues before they affect users.

- **Reduce operations fatigue.** Gain the converged capabilities you need to obtain visibility, reduce noise, eliminate manual efforts and streamline workflows.

- **Protect your investments.** Extend your existing CA, A Broadcom Company monitoring investments to support modern architectures while gaining advanced network visibility and AI and machine learning (ML) capabilities.
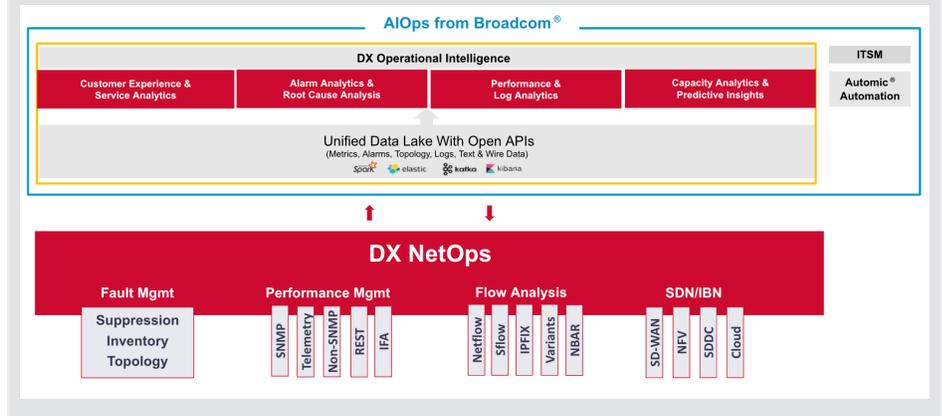
Key Features

- **Cross domain AIOps insights.** Delivers algorithmic noise reduction, anomaly detection, and application-centric root cause topologies.

- **Proactive Congestion Triage.** Enables real-time, silicon insights into hop-by-hop latency, packet drops, and network congestion.

- **Correlated, normalized, and reliable network data.** Provides network-aware service, alarm, capacity, and topology analytics.

- **Vendor agnostic modern architecture support.** Enables project monitoring from pilot to global deployment.

- **Optimized application policies.** Balance end user experience and cost.

- **Operational workflows.** Simplify large and complex SDN technologies.

- **Unified device availability, flow, faults, and packet analysis.** Enable granular visibility.

At A Glance

DX NetOps improves your time to value through advanced artificial intelligence (AI) capabilities and unified network visibility that delivers simplified NetOps intelligence into the user experience that traverses modern architectures. DX NetOps accomplishes this through high-scale operations monitoring that enables full-stack analytics for assuring traditional and modern architectures. DX NetOps converts inventory, topology, device metrics, faults, flow, and packet analysis into actionable intelligence for network operations teams. Complimented by AIOps from Broadcom®, DX NetOps enables IT teams to establish proactive, autonomous remediation capabilities across the applications, infrastructure, and networks that fuel superior user experiences.

Figure 1: Comprehensive visibility coupled with AI and ML, DX NetOps unifies all your monitoring metrics in an easy to consume portal that scales to meet the dynamism of modern architecture and delivers end-to-end coverage across any network.

Business Challenges

Network teams today are facing a technological inflection point, networks everywhere are being re-architected to support cloud migrations and a demanding consumer. Teams struggle to keep pace with the tsunami of metrics generated by complex, modern architectures that fuel today's network congestion.

Teams also struggle to relieve stress on the WAN caused by highly sensitive applications, and to achieve a unified way to correlate alerts and to reduce noise while helping to drive network transformation.

Solutions Overview

The new KPI is not network performance, it is the application experience. To succeed, network operations teams need holistic, contextual, and autonomous intelligence in a timely manner across domains to truly drive a phenomenal customer experience and reduce operational complexities.

With a combination of real-time monitoring and ML driven analytics, DX NetOps comprehensively simplifies today's modern network complexity through high-scale operations monitoring that enables full-stack analytics for assuring traditional, software-defined, and cloud architectures.

Leveraging more than 20 plus years experience, the solution delivers a reliable user experience through a full suite of diagnostic capabilities including root cause, topologies, device metrics, faults, flow, packet, and controller analysis. The solution can assure the entire pathway to the cloud, covering the WAN, the delivery network, and the data center cloud.

The solution offers additional features including:

- A single pane operations interface that provides use-case-specific expert dashboards, multivendor metric families, business-hours focus, and versatile grouping for contextual analysis.
- Open third-party integration to help enable speedy extraction or ingestion from third-party software or custom applications to break down data silos.
- Optimized collection and storage to enable reliable assurance with customized control over what to monitor and how to monitor it.
- Multitenancy that offers an easy way to segregate network data according to customers, roles, and access rights.
- A complimentary AIOps analytics solution that provides full stack correlations, predictions, and algorithmic analysis of alarms, metrics, logs, and topologies.

Figure 2: Proactive network congestion monitoring across modern technologies, such as 5G, enables visibility down to the nanosecond and is the differentiated AIOps value that we bring to enterprise businesses and service providers.
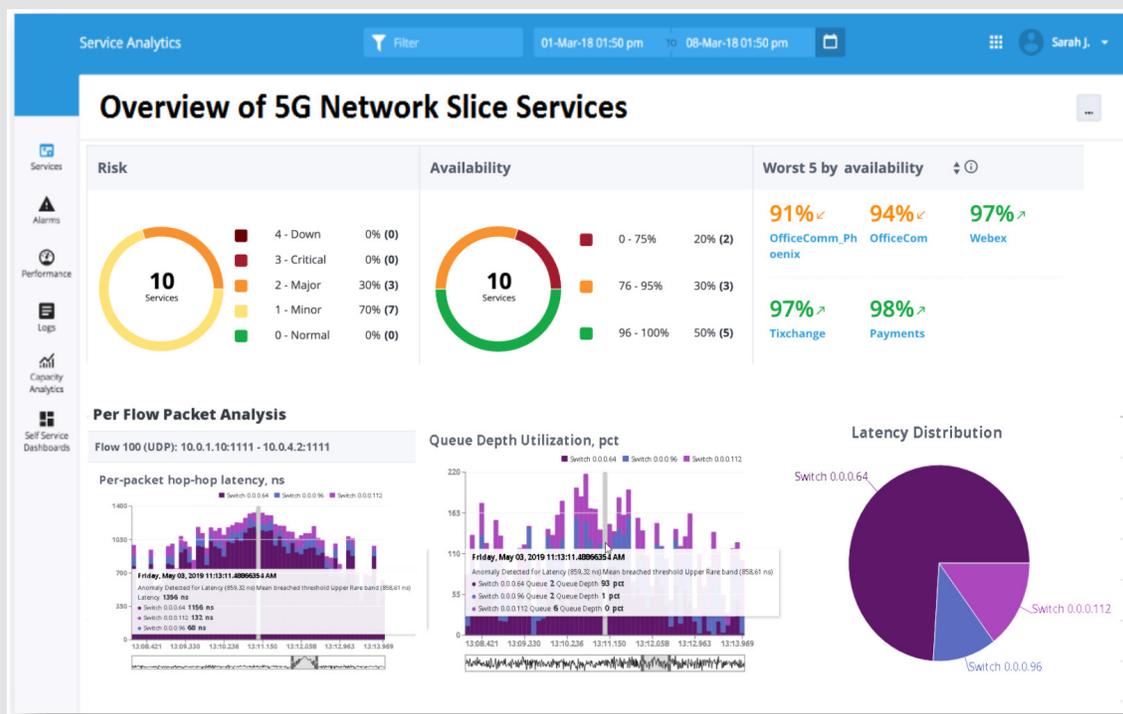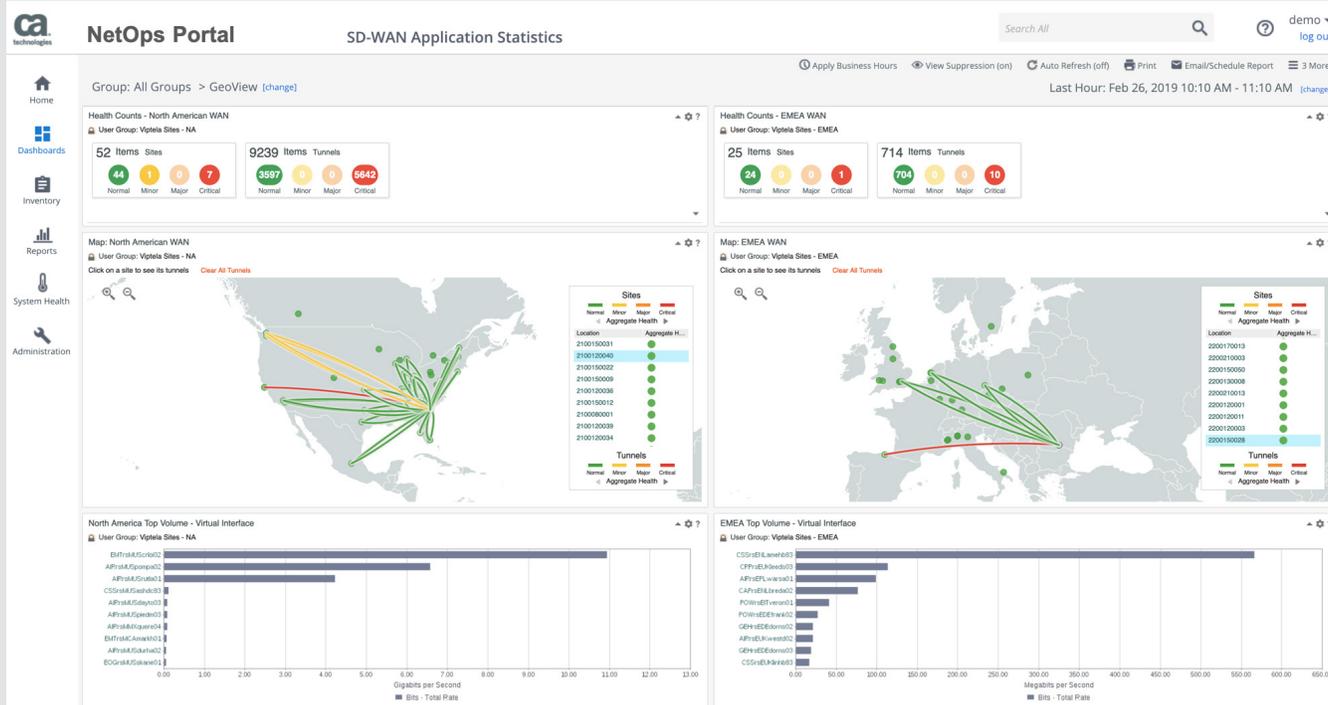
Figure 3: A single portal approach to vendor agnostic SD-WAN monitoring with comprehensive data visibility including advanced analysis of control-plane application policy performance.

Critical Differentiators

The following features and capabilities set DX NetOps apart from other solutions:

- **Network congestion triage powered by Broadcom® silicon** – Our industry-first software to silicon solution for edge networking, IoT, 5G and private cloud data centers powered by Broadcom silicon and Broadview™ telemetry for granular, real-time insights into hop-by-hop latency, packet drops, and network congestion; along with AI-driven network triage and automation capabilities.

- **AI and ML for networks** – Combined with AIOps, the solution features automated triage through algorithmic noise reduction, anomaly detection and application-centric root cause topology insights that can automatically discover key IT assets and map them to associated services, enabling more intelligent correlation and prioritization.

- **Single pane operations monitoring** – Discover and monitor traditional and modern SDx networks, LAN, WAN, data centers, enterprise networks, service provider networks, and cloud architectures with expert dashboards for end-to-end assurance. The solution helps drive network-wide operational awareness with unified real-time alarms, historical performance, and flow views.

- **End-to-end user experience visibility** – We are one of the few AIOps vendors with both network performance monitoring and diagnostics, and application performance management functionality, allowing end users seeking integration across application and network domains an opportunity for end-to-end visibility.

Built for Today's Modern Operational Use Cases

Broadcom delivers solutions that fuel intelligent insights, providing the capabilities that network operations teams need to manage their dynamic, hybrid environments that host the application experience. The DX NetOps unified platform supports today's modern network operations use cases:

- **Predicting network congestion** – Our industry-first software to silicon solution powered by Broadcom silicon and BroadView telemetry for granular, real-time insights into network congestion.

- **AI and ML for networks** – Reduce mean time to repair (MTTR) with automated triage through algorithmic noise reduction, anomaly detection, and application-centric root cause topology insights.

- **Single-pane hyperconnected operations** – Unified portal that provides edge-to-edge operational dashboards and visibility across traditional, software-defined, and hybrid-cloud architectures.

- **Easy triage through intelligent analytics and root cause analysis** – Simplify complex modern network deployments and improve MTTR with in-context granular visibility.

- **WAN/SD-WAN** – Monitor WAN and SD-WAN networks to ensure site availability and policy-defined application delivery.

- **Data center/SDDC** – East-west traffic analysis and visualizations for data center wide intelligence.

- **Hybrid cloud** – Deep packet and flow analysis, and holistic visibility into private, public or hybrid cloud workloads, network performance, and cloud-based wireless technologies.

- **Carrier networks** – Simplified intelligence of 4G/5G, NFV, cable, and backhaul networks.

For more information, please visit: broadcom.com/netops

Figure 4: The DX NetOps reference architecture details the unified integrations among the entire network stack, NetOps, portal, and Broadcom Broadview integrations.