IBM SevOne Network Performance Management (NPM)

Advanced capabilities for network and application visibility, insight and action

Address the growing complexity of network performance monitoring

Digital transformation is rapidly increasing, and with it, the difficulty to capture all the necessary data for dynamic network performance monitoring. Network management has never been easy for enterprise network operations and engineering teams, communication services providers (CSPs) and managed service providers (MSPs). Furthermore, it has become far more difficult as the complexity of network and application infrastructure has soared.

Teams are working hard to restructure their networks with the latest wifi, software-defined wide area network (SD-WAN), software-defined network (SDN), multicloud and 5G technologies while looking ahead to what's on the horizon. All this next-generation infrastructure supports the essential applications driving their businesses. As a result, they must also adapt their approach to network monitoring.

New infrastructures require monitoring systems with application-aware context that are just as dynamic, flexible and scalable as the new environments. With modern monitoring and industry experts leading the charge, organizations can dramatically increase business agility and launch new business services more quickly while maintaining the highest levels of efficiency and reliability.

Machine-learning powered network performance management

Designed for modern monitoring and analytics, IBM® SevOne Network Performance Management (NPM) is a comprehensive, highly scalable and application-aware network performance monitoring system. IBM SevOne NPM provides IT professionals with the data and planning insights required to deliver smooth transitions to virtualized networking and cloud services. By transforming raw network performance data from infrastructure across the entire delivery chain into actionable insights, IBM SevOne NPM delivers a comprehensive view of happening in the network and how that performance affects the applications driving modern businesses. IBM SevOne NPM meets the agility, reliability and business efficiency needs of modernized organizations with insights to optimize a modern network.

Surface what matters

As technologies like artificial intelligence (AI) and machine learning (ML) advance and apply to modern network and infrastructure monitoring systems, we can begin to go beyond detection and act on what matters.

As an industry leader, IBM's expertise, coupled with advanced network monitoring, can expand our network view and start to provide context for what's normal over time through a simplified workflow.

IBM **Cloud**

IBM

Modern solutions for today and tomorrow

Collect

IBM SevOne NPM provides a comprehensive collection of multivendor performance data from physical, virtual and software-defined infrastructure. We use polling, NetFlow and network streaming telemetry to help organizations and their practitioners transition from today's physical networks to tomorrow's virtual and software-defined networks. The demonstrated scalability of IBM SevOne NPM has been deployed in some of the world's largest networks.

– **Monitor essentially any device.** Use a library of thousands of devices from across your multivendor network, such as routers, switches, firewalls, load balancers, physical and virtual servers, and more.

– **"Out-of-the-box" support.** Automatically integrate performance data from thousands of devices and technologies with built-in support for extracting metrics and flow data from your network using a variety of methods. Methods include DNS, HTTP, ICMP, IP, SLA, VMware, JMX, NBAR, Proxy Ping, SNMP, WMI, NetFlow, IPFIX and more.
– **Next-generation networks.** Ease the transition to SDNs, with leading vendors in SD-WAN, SDN and wifi. Monitor your physical and virtual environment from a unified dashboard.
– **Ten-day new SNMP device support.** Deploy a new SNMP-based device in your environment that you need to monitor as part of your IBM SevOne NPM deployment within a ten-business-day SLA.
– **API-based automation.** Automate platform actions, such as the creation, deletion and updating of objects, devices, sources, metadata, alerts, policies, groups, reports and maps through Representational State Transfer (REST)-based APIs.
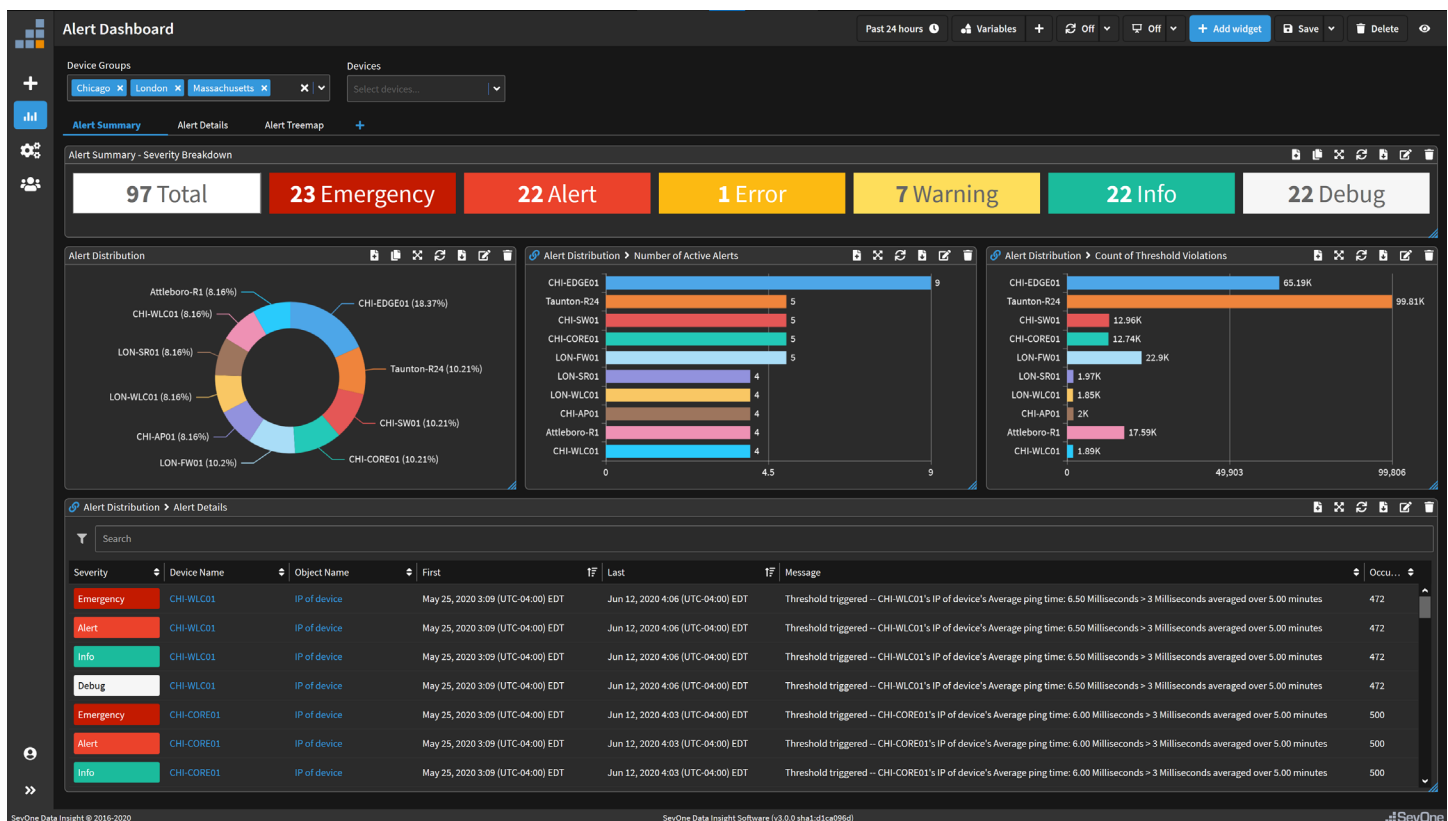

Figure 1. Alert dashboard

Analyze

The cutting-edge IBM SevOne NPM ML-powered analytics engine provides IT professionals with intelligent and relevant insights. These insights help teams see building performance issues early and are designed to address them quickly, mitigating them before problems erupt into user-impacting events. Insights gained from these analyses also have longer-term, strategic benefits in areas, such as network planning and optimization of IT operations.

– **ML baselines.** Automatically baseline every data metric you collect and get alerts when real-time performance deviates from historical norms.
– **Flexible threshold management.** Use a range of threshold policy options, including standard deviation from normal, time over threshold and count over time, for intelligent alerting.
– **Programmatic goal lines.** Enhance performance visibility across an organization using metadata, such as SLAs, to automatically define and adjust performance goal lines.
– **Plan for capacity.** Use your real-time and historical data patterns to automatically project your future needs like WAN links, CPU utilization and power usage with confidence.
– **Plan for maintenance windows.** Proactively create, view, edit and delete device-level maintenance windows via the user interface (UI) or REST API.
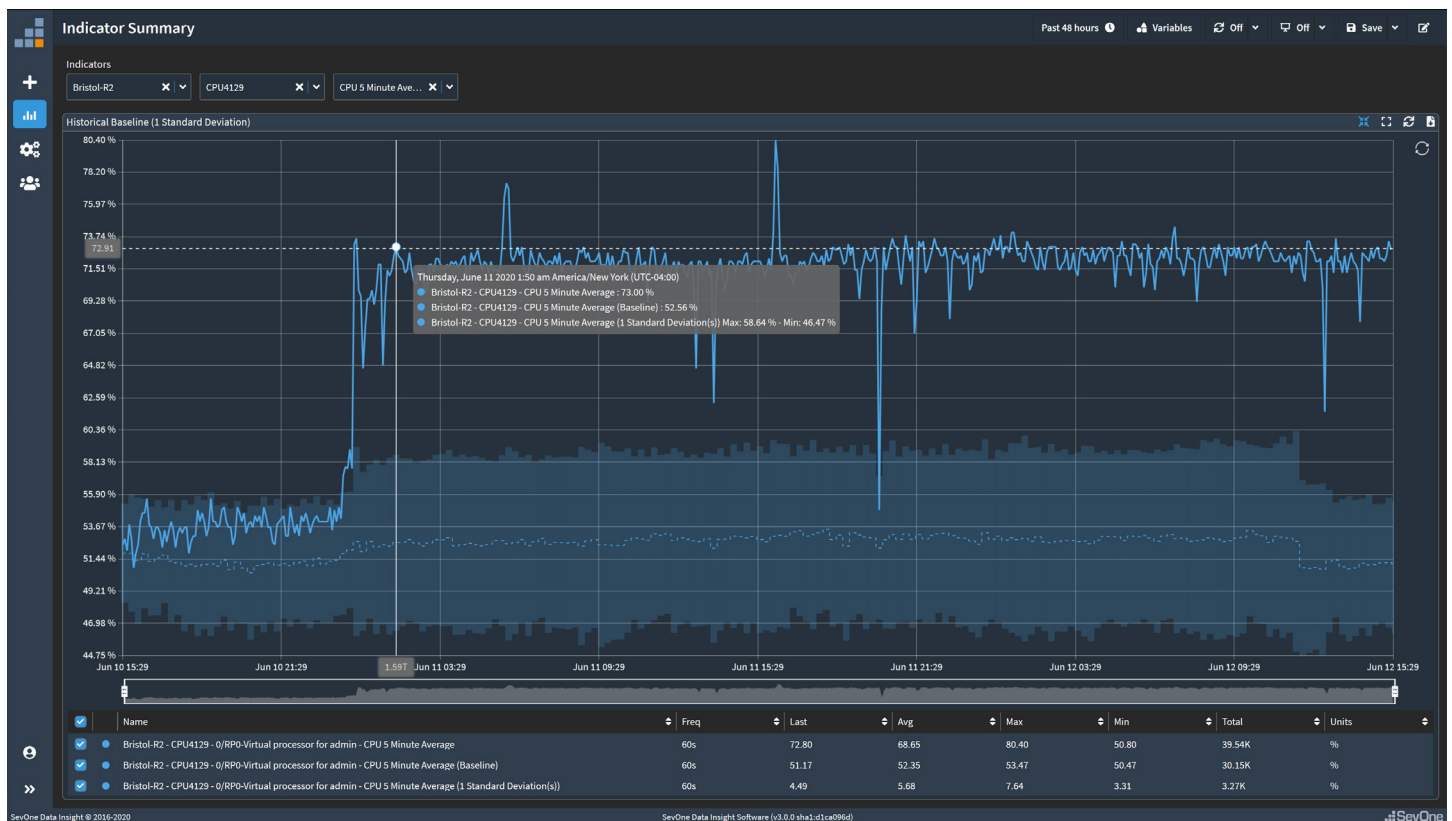

Figure 2. Indicator summary

Visualize and simplify

To maximize their networks' effectiveness, NetOps, engineering and IT teams need fast and easy ways to visualize operational insights they have gained and share them with all types of users across their organizations. IBM SevOne NPM meets this need with functions that all types of users can use on day one.

– **Simplified, reusable and scalable reporting.** Experience immediate value from out-of-the-box, day-one reporting, with a series of auto-populating and fully editable metric and flow data dashboards for common network performance reporting needs—in light or dark theme.

– **Simplified and reusable troubleshooting workflows.** Build links between reports into a troubleshooting workflow, then reuse it across multiple users and teams for increased operational consistency.

– **Move from awareness to analysis.** Pivot and visualize related metric, flow and alert data more quickly through enhanced chaining, coupled with interactivity between chained widgets in the same report—and then share these reports across teams.

– **LiveMaps.** Leverage network topology for every device and device group with built-in dimensions that offer greater visibility into metrics and alerting into a single source live map for quicker troubleshooting, reducing mean time to resolution (MTTR).

– **MSP ready.** Support multitenant service provisioning operations with customized UI branding and "look and feel" for each tenant. Load in new users and manage user administration for each tenant with greater ease, without any direct user interaction.
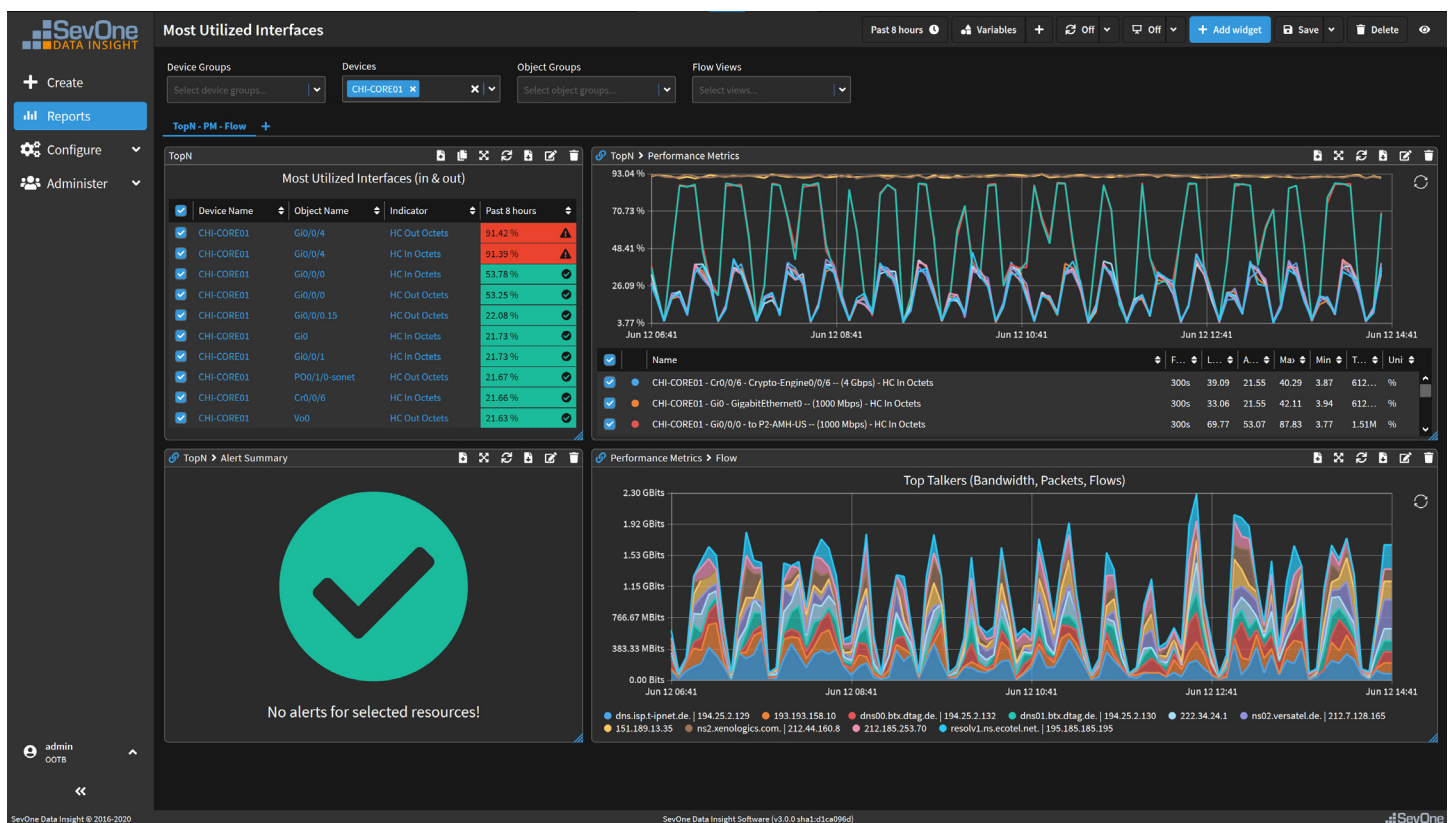

Figure 3. Most utilized interfaces

Integrate
To maximize the value of NPM data and apply it beyond domain silos, an increasing number of organizations are combining their performance intel with that of their customers and partners. They're also sharing their data with various third-party applications. IBM SevOne NPM facilitates these activities with integration resources that are designed to make it easy to assimilate IBM SevOne NPM data throughout organizations' business decision tools.

– **Extend IBM Cloud Pak® for Watson AIOps.** IBM SevOne NPM can be configured to forward real-time ML-based alerts to IBM Cloud Pak for Watson AIOps.
– **Integrate with leading ITSM systems.** Two-way integration with leading IT service management (ITSM) systems closes the loop between insights and actions.
– **Visually integrate third-party data.** Through a widget development kit, users can visualize third-party data sources and create workflows between IBM SevOne NPM collected data and third-party data. Visualization of Splunk and ELK-based log data is supported out of the box.
– **Stream performance data in real time.** IBM SevOne NPM can be integrated with your third-party applications that subscribe to an Apache Kafka or Apache Pulsar data bus. Integrate with data lakes, business intelligence systems, SDN and network functions virtualization (NFV) controllers and orchestrators, and more.
– **Transition to streaming with confidence.** Transition to streaming data while still supporting existing batch mode data access with simultaneous use of batch mode and streaming data.

Why IBM?

IBM SevOne Network Performance Management (NPM) provides a single source of truth to proactively monitor end-to-end network performance and improve user application experiences by helping assure network performance across multivendor, enterprise, communication and MSP networks.

For more information

Learn more about IBM SevOne Network Performance Management and how it can help your organization monitor and manage the performance of both your existing and next-generation network and infrastructure resources more effectively.