ES NetBrain Enterprise Suite

Map-Driven Network Automation

Product Overview

When it comes to troubleshooting, design, and compliance, network managers have a tough job – they often rely on outdated documentation while manually accessing network information one device at a time. In efforts to speed up these tasks, many engineers develop in-house scripts, but these are difficult to write and maintain.

NetBrain Enterprise Suite automates time-consuming tasks associated with network documentation, design, and troubleshooting with powerful and customizable map-driven automation. Leveraging a data-driven map, NetBrain enables users to collect and diagnose network data automatically, to accelerate virtually any network task.

Automate Documentation

Too often, network documentation is outdated or doesn't even exist. With NetBrain, engineers can create customized documentation on-the-fly. NetBrain automates topology diagrams, inventory reports, and design documents and keeps them updated automatically:

- **Discover live network instantly** – NetBrain collects and organizes detailed topology and design data from the network
- **Create documentation dynamically** – NetBrain creates up-to-date documentation on-demand
- **Update documentation automatically** – NetBrain keeps documentation updated with routine benchmarks
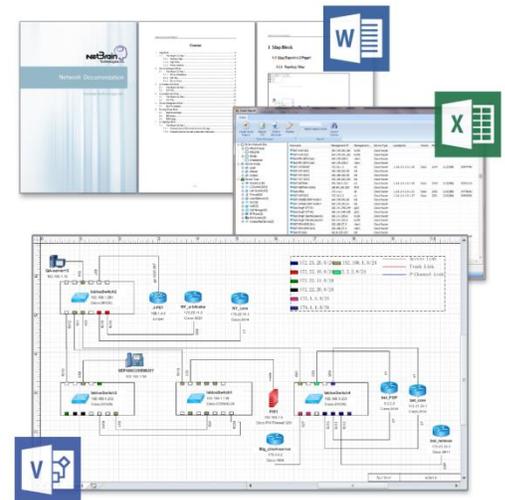

Automate Network Documentation

Automate Troubleshooting Diagnosis

As critical as the network is, troubleshooting is a largely manual and time-consuming process. For any particular outage, there can be hundreds of possible causes. NetBrain automates hundreds of diagnoses and instantly detects anomalies in network configuration and performance:

- **Instant and targeted map** – Target the problem area with a data-rich dynamic diagram
- **Holistic historical analysis** – Leverage historical data to find recent (and potentially problematic) changes
- **Hundreds of automated diagnoses –** Automatically diagnose routing, switching, multicasting, QoS, and more
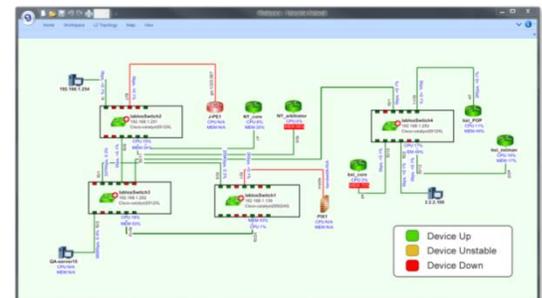
Automate Performance Diagnosis

Automate Change Verification

Nearly half of all outages can be traced back to a network change. To help make changes less risky, NetBrain automates the rollout of configuration changes and validates their impact across the network:

- **Deploy changes** across the network, with one click
- **Analyze change impact** to see the effect on configuration and routing across the network
- **Document changes** with one-click Word documentation

Key Feature Highlights

o **Comprehensive Auto-Discovery**
High-speed discovery engine finds and inventories every network device and captures deep L2/L3 configuration and design information.

o **Dynamic Network Mapping**
Exclusive mapping technology renders deep network intelligence on a dynamically-created diagram. Diagrams stay updated automatically.

o **Path Discovery and Mapping**
Supporting L1-L7 deep path discovery, NetBrain can map traffic flows between two endpoints, through any network device.

o **Automated Network Documentation**
Generate network documentation with one-click including L2/L3 Visio Diagrams, inventory spreadsheets, and compliance/design documents.

o **Integrated Monitoring**
Pinpoint network performance issues such as bottlenecks and interface errors, in real-time on either an L2 or L3 map.

o **Visual Troubleshooting**
Isolate network problems at the device level by detecting performance issues, automating diagnoses, and highlighting recent changes.

o **Historical Benchmarks**
NetBrain builds an extensive baseline of the network. Changes to the network are captured automatically with recurring benchmarks.

o **Change Automation & Verification**
NetBrain automatically deploys configuration changes across multiple devices and instantly validates the impact they have on the network.

o **Customizable Automation Technology**
Exclusive Qapp technology provides add-on functionality to NetBrain. Adding a Qapp is like installing an app on a smartphone.

o **Enterprise Scalability**
Scalability is achieved through server deployment, supporting networks with tens of thousands of network devices.

How it Works

NetBrain is a powerful yet intuitive network automation solution, combining the customization of scripting with the familiarity of a network map as the user interface. Dynamic network diagrams, known as Qmaps, are rich with network data collected from a deep network discovery and enhanced with live performance statistics.

Qmap - Dynamic Mapping Technology

NetBrain's unique Qmaps embed both topology and underlying design data into the map, making information quickly accessible without relying on memory or the command-line interface. Dynamic diagrams have the following benefits:

- **On-demand creation** – Create customized diagrams on-the-fly
- **Data-Driven** – Every device on the map has hundreds of attributes
- **Dynamic Zoom** – Access detailed elements by zooming into the map
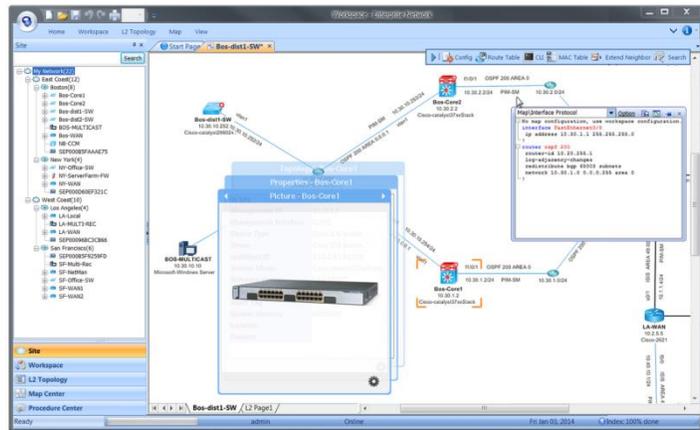
L3 Qmap with Device Attributes

Qapp - Customizable Automation Technology

Similar to adding an app to your smartphone, you can enhance NetBrain's capabilities with a 'Qapp'. Qapps can be programmed through a visual programming environment, with no scripting, to automate network analysis and diagnosis. Each Qapp effectively digitizes an engineer's knowledge, making it executable for the whole team. Use Qapps to:

- **Automate troubleshooting diagnoses** – Tailor a customized diagnosis for routing, multicasting, QoS, and more
- **Automate compliance checks** – Parse hundreds of config files to find compliance anomalies
- **Automate network tests** – Test connectivity across the network

Scalability & Deployment

NetBrain Enterprise Suite is designed to handle very large networks with tens of thousands of devices. Scalability is achieved by intelligently distributing computing resources across enterprise server(s).