# NetBrain® Enterprise Edition
## Map-Driven Network Automation

## Product Overview

When it comes to troubleshooting, design, and security, network managers have a tough job – they often rely on outdated documentation while manually accessing network information one device at a time. For large enterprise networks, automation is a must-have, but in-house scripts are difficult to write and maintain.

With NetBrain Enterprise Edition network teams can automate time-consuming tasks associated with network documentation, troubleshooting, and security with powerful map-driven automation. Leveraging a data-driven map, NetBrain enables users to collect and diagnose network data automatically, to reduce manual labor and minimize network outages.

## 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Too often, network documentation is outdated or doesn't even exist.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
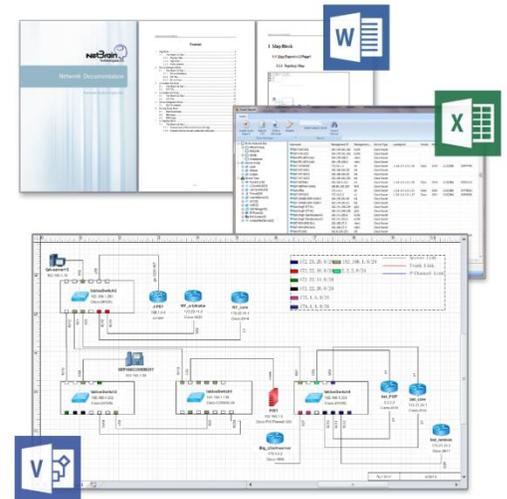

*Automate Network Documentation*

## 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. With NetBrain, engineers can leverage programmable automation to diagnose issues in half the time.

- **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
- **Executable diagnoses –**Engineers can customize hundreds of diagnoses – from routing to switching, multicasting, QoS, and more
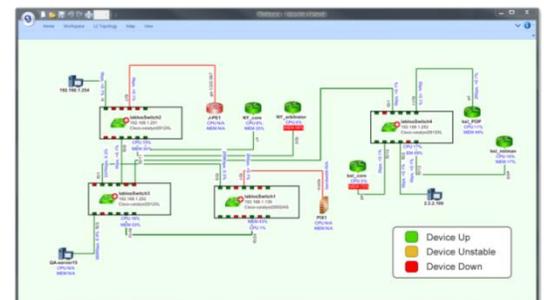

*Automate Performance Diagnosis*

## 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

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

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

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

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

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

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

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

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

○ **Runbook Automation**
Engineers can digitize troubleshooting methodologies into Runbooks. Each step in a runbook is fully automated and customizable.

○ **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 data.

## Qmap™ - Dynamic Mapping Technology

NetBrain's unique Qmaps embed both topology and 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

▪ **Limitless Detail** – Every device on the map has hundreds of attributes

▪ **Automatic updates** – When the network changes, so do the maps
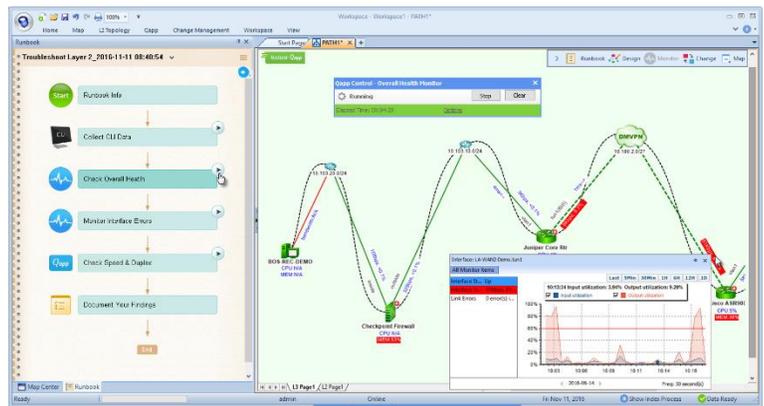


*Runbook Automation to Diagnose a Slow Application*

## Runbook Automation

Network teams often use playbooks to document common methodologies and best practices. With NetBrain, those playbooks can be digitized so they can become executed. Leveraging programmable automation, there's no limit to Runbook automation.

▪ **Programmable Automation** – NetBrain's visual programming environment allows for customizable automation, without scripts

▪ **Hundreds of built-in diagnoses** – NetBrain includes hundreds of built-in features for network analysis and diagnosis

▪ **Save and Share Runbooks** – All data captured during Runbook execution is saved to the Runbook inside the map so it's easy to share.

## 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).