Network Automation


Today global 2000 companies, government agencies, and service providers use automation to keep network management costs contained, effectively manage network changes, and implement new deployments such as cloud and virtual environments while providing the quality and responsiveness that their businesses demand. Network Automation software goes beyond multivendor network configuration management to help you prevent errors before they occur and deliver measurable cost savings using process-driven network automation.

The end result is a resilient, maintainable, and cost-effective network that is compliant with both company standards and government regulations.

Network Automation automates the complete operational lifecycle of network devices from provisioning to policy-based change management, compliance, and security administration.

When combined with Network Node Manager i (NNMi) software, you get an integrated solution that unifies network fault, availability, and performance with change, configuration, compliance, and automated diagnostics. This is the basis for Automated Network Management.

Network Automation provides process-powered automation when combined with Operations Orchestration (OO) software. Network Automation and OO take workflow automation to a new level, letting you automate IT workflows beyond traditional network change and configuration management. Automation is of little value if your devices are not supported. That is why Network Automation supports an exhaustive set of network devices from over 130 vendors, and includes virtual devices, giving you comprehensive network change and configuration management coverage for an extensive range of devices. Micro Focus also offers Network Driver Studio (NDS)—a tool that allows users to self-develop device drivers that interoperate with Network Automation. The NDS enables end users to develop new drivers to manage network devices not supported by Network Automation out-of-the-box.

Key Features and Benefits

- Reduce costs by automating time-consuming manual change, configuration, and compliance tasks.
- Pass audit and compliance requirements easily with proactive policy enforcement and audit and compliance reports [ITIL, PCI, Health Insurance Portability and Accountability Act (HIPAA), Sarbanes-Oxley Act (SOX), Gramm-Leach-Bliley Act, and others].
- Increase network stability and uptime by preventing the inconsistencies and misconfigurations that are at the root of most problems.
- Use process-powered automation to deliver application integrations, which deliver full IT lifecycle workflow automation, without scripting.
- Support SNMPv3 and IPv6, including dual-stack IPv4 and IPv6 support. Network Automation supports both of these technologies to provide flexibility in your protocol strategy and implementation.
- Use automated software image management to deploy wide-scale image updates quickly.
- Manage virtual switch and virtual context environments to support new cloud computing and virtual network deployments.
- RSA 2-factor 64-bit support for device authentication:
  - Broad device support
  - Multiserver architecture to support scalability and high availability (HA)
  - Integrates with NNMi, Server Automation, and OO.
Bringing networks into compliance with corporate or regulatory standards is a nontrivial, labor-intensive, and ultimately difficult task. Network Automation Ultimate edition helps you meet compliance standards through a network compliance model that maps device information, including configurations and run-time diagnostics, as well as policies and user roles, into a normalized structure to prevent compliance violations before they occur. Network run-time compliance enforcement helps you continually meet network compliance requirements.

Network Automation extends policy-based compliance to include the run-time state of your network to proactively detect problems. You can validate new changes against policies automatically to proactively avoid misconfigurations and noncompliant changes. If changes do not comply, Network Automation alerts you to make appropriate corrections before applying them to a device, or automatically remediates devices that are found to be out of compliance.

Flexibly generate out-of-the-box reports that comply with the information technology infrastructure library (ITIL) standard, the payment card industry (PCI) standard, or any other internal or external report standard. Create customized reports using the Business Service Automation (BSA) Essentials reporting package, which is included with the Network Automation solution.

Network Automation can manage dual-stack and pure internet protocol version 6 (IPv6) environments. It meets security requirements for managing simple network management protocol version 3 (SNMPv3) configurations and can communicate over SNMPv3.

Network Automation provides visibility and control over globally distributed, multivendor networks. This helps you to dramatically reduce manual misconfigurations that cause the majority of security breaches and network downtime. Network Automation gathers detailed information about network devices and records configuration changes for managed devices. Notifications of changes give you immediate visibility into planned, unplanned, and unauthorized changes.

An entire network can be managed on a single instance of network automation, unless requirements dictate the need for increased scalability and redundancy of the application which can also be provided. Customers can implement distributed architectures to provide scalability and redundancy. Satellites are also available to allow customers to manage overlapping IP addresses and provide better WAN bandwidth management while using network automation.

Network Automation stores device software images and configurations. It can grow as your network increases in size and complexity. If you need to replace a device, simply deploy the original software image and configuration to bring the device back into operation easily, quickly, and efficiently, using out-of-the-box tasks for software deployment and device templates.

The satellite features offer real-time visibility and control for your enterprise network, including support for remote locations around the world. It also provides failover support for your...
network, automatically replicating information to multiple locations, allowing the new locations to use information immediately. It also lets network teams use best practices and knowledge across multiple locations and provides operational consistency across your enterprise. Satellites lets you manage your remote network devices from a central location, supporting overlapping ranges and/or WAN links.

Network Automation Premium includes:
- Network Automation Server
- Network Automation Satellites
- Distributed architecture options

Network Automation Ultimate includes the above capabilities plus:
- Policy compliance features (features are not included in Network Automation Premium)

Network Automation stores device software images and configurations. It can grow as your network increases in size and complexity. It offers automated network management for geographically dispersed networks. If you need to replace a device, simply deploy the original software image and configuration to bring the device back into operation easily, quickly, and efficiently, using out-of-the-box tasks for software deployment and device templates. Using integrated, single-source software (OO + Network Automation), automate IT workflows for otherwise manual processes, accomplished primarily through complex scripting.

In real time, detect configuration and asset information changes made across a multivendor device network, regardless of how each change is made.

Perform rapid troubleshooting and manage network compliance by comparing devices to defined, best-practice standards. Validate device operating states in real time to stay in compliance. Control noncompliance with automatic remediation of devices that violate standards (Ultimate edition only). Speed internal and external audit processes with network policy compliance reports for ITIL, SOX, HIPAA, Payment Card Industry Data Security Standard (PCI DSS), and more.

Manage dual-stack and pure IPv6 environments. Manage SNMPv3 configurations and communicate over SNMPv3.

Update images and feature sets quickly, reliably, and easily. Deploy and monitor operating system images from a centralized network management system. Control the deployment of images for specific requirements to prevent mistakes before they happen. Create a repository, and synchronize all device software images across your enterprise network. Use image management to automatically identify, download, and install the recommended software image for your network devices. In real time, store a complete audit trail of configuration changes (hardware and software) made to network devices, including critical change information.

Configure granular, customizable user roles to control permissions on device views, device actions, and system actions. Support common authentication systems, such as Terminal Access Controller Access Control System Plus (TACACS+), RADIUS, SecurID, Active Directory, Lightweight Directory Access Protocol (LDAP), and public key infrastructure (PKI) user authentication.

Automate routine configuration tasks for updates, such as password or community string changes. Reduce the time needed to build automation scripts and increase accuracy with auto-generated scripts derived from device sessions.

Create complex automation flows, integrating internal and third-party systems. Leverage more than 200 system triggers to drive automation.

Enforce change processes in real time. Model complex approval processes with flexible rules. Force approvals for changes, including changes made by a direct command line interface (CLI) session. Combine multiple tasks into a project workflow to determine whether the system should proceed to the next step.

Implement scalability, HA, and DR solutions with satellite deployments. Scalability feature offers you added flexibility in how you can grow capacity while controlling software and hardware costs. Administrators can effectively manage geographically dispersed networks without a single point of failure.

Understand which servers are affected by changes to specific network devices. Server Automation and Network Automation integration provides a comprehensive view and automation of your entire IT infrastructure.

One-click launching of tasks for faster user organization and execution of common tasks. It’s like a browser bookmark, but for saving, organizing, and launching Network Automation tasks similar to how bookmarks work for Web pages.

Have control over the names of your resources. E.g.: IP addresses; VLAN names; license keys, Hot Standby Router Protocol (HSRP) group IDs, ACL IDs, etc. from a single tool.
Micro Focus provides a comprehensive curriculum of Micro Focus Software and IT Service Management courses. These offerings provide the training you need to realize the full potential of your solutions, increase your network optimization and responsiveness, and achieve better return on your IT investments. With more than 30 years of experience in meeting complex education challenges worldwide, Micro Focus knows training. This experience, coupled with unique insights into Micro Focus Software products, positions Micro Focus to deliver an outstanding training experience. For more information about these and other educational courses:

Micro Focus provides high-quality software services that address all aspects of your software application lifecycle needs. The wide range of service offerings—from online, self-solve support to proactive mission-critical services—enables you to choose the services that best match your business needs. For an overview of software services, visit:

https://software.microfocus.com/products