

# VMware Network Configuration Manager

Automated configuration, change and compliance management for multi-vendor networks

## ESSENTIALS

### Complete lifecycle management

- Auto-discover, baseline, design, validate, update, audit and manage device configurations for thousands of network devices.
- Perform bulk configuration changes and push software patches to multiple devices of your choice.

### Availability and performance integration

- Significantly reduce time needed to identify IT problems and restore IT services.

### Automates manual and repetitive tasks

- Links network compliance with remediation
- Discovers and models network relationships
- Enforces best practices for changes across the network
- Queries multiple devices at once for software and firmware compliance

VMware® Network Configuration Manager is an automated configuration, change and compliance management solution. As part of the Telco Cloud Operations family, it allows you to do bulk configuration changes and verify controlled change processes. It provides network device and service configuration transparency and helps ensure compliance with corporate and regulatory requirements. With these capabilities, you can enhance the security, availability, and operational efficiency of your network.

## Managing to the network infrastructure lifecycle

Network Configuration Manager automates support for all facets of the network infrastructure lifecycle by seamlessly integrating critical design, change, and compliance management requirements.

### Design

- Design new virtual networks based on existing designs with Network Configuration Manager's Workspace.
- Collaborate securely in real time thanks to complete role-based security.
- Employ automation to quickly create error-free large-scale designs.
- Audit designs—before deployment—for compliance with policies and standards.

### Change

- Realize significant improvements in the availability and consistency of services.
- Use "golden configs" (optimal baseline configurations) to create templates for new device deployments.
- Dramatically reduce standard change errors.
- Address standard and non-standard changes.
- Complete routine and complex tasks with ITIL-compliant change processes and workflow approvals.
- Adapt the configuration tool to your processes with integrations to popular workflow, trouble ticketing, and help-desk solutions.

### Compliance

- Enforce adherence to complex configuration policies.
- Enforce policies over the entire domain—or just one network, site, or subnet.
- Demonstrate on-demand compliance and its change/control process.



Network Configuration Manager's simplified, web-deployed interface provides easy access to the critical compliance, change, and configuration management information you need.

## Delivering rapid return on investment

By streamlining compliance, change, and configuration management tasks for ongoing and planned changes, ad hoc or unplanned changes, deployment of new projects, and management of consistency and compliance, Network Configuration Manager delivers industry-leading return on investment (ROI). This rapid ROI stems from Network Configuration Manager's ability to leverage the power of automation and model-based management, increase efficiency, improve availability, simplify service activation and installation, enhance security, and ensure compliance.

### Automation

- Perform commonly executed IT network management tasks in a fraction of the time.
- Meet the ideal frequency of credential, network access control list (ACL), and operating system (OS) updates for your entire network—while spending less than you do today.

### Efficiency

- Allow your network operations staff to support significantly more devices—without increasing headcount.
- Leverage multi-configuration file support to:
  - Completely understand a configuration state at any time.
  - Independently capture and revise multiple configuration files from a device.
- Abstract device configurations to manage configurations in a vendor-neutral manner at the class and policy levels—rather than inefficiently manage a specific configuration for each manufacturer's device.
- Create read/write device drivers to speed time to new equipment deployment.
- Manage both IPv6 and IPv4 devices using one system.
- Leverage enhanced templating to store and reuse already created configuration information, and access external data sources.

### Availability

- Network Configuration Manager can be integrated with VMware Telco Cloud Operations to dramatically reduce the time required to investigate and resolve change- and configuration-related issues.
- Avoid service-affecting network outages and associated SLA penalties by controlling change. It is estimated by leading analysts that 60–80% of service-impacting network outages are caused by change and configuration errors.

### Service activation and installation

- Reduce costly truck tolls, site visits, and pre-staging of devices through provisioning delivered through Network Configuration Manager.

### AUTOMATION, EFFICIENCY, SECURITY AND COMPLIANCE

Within hours, Network Configuration Manager allows you to:

- Roll passwords and SNMP credentials for 5,000 devices.
- Update OS images on more than 100 devices.
- Normalize access control lists from various devices into a common format.
- Modify access control lists on 5,000 devices in minutes.
- Audit 15,000 devices for compliance.
- Remediate non-compliant configurations on more than 1,000 devices.

### Security

- Security technical implementation guide (STIG) configurations ensure standards compliance.
- Respond rapidly to network vulnerabilities by modifying access control lists on thousands of network devices simultaneously.
- Deploy security-related updates for selected network devices in minutes per network, instead of minutes per device (for example, if a patch is placed on a FTP server, it can be pushed out via command line).
- Quickly demonstrate that your network is in compliance with a single click.
- Write compliance rules that work across multiple hardware vendors' devices.

### Architecture

Network Configuration Manager's multi-tiered management architecture provides extreme scalability and flexibility, allowing you to configure your networks based on your criteria.

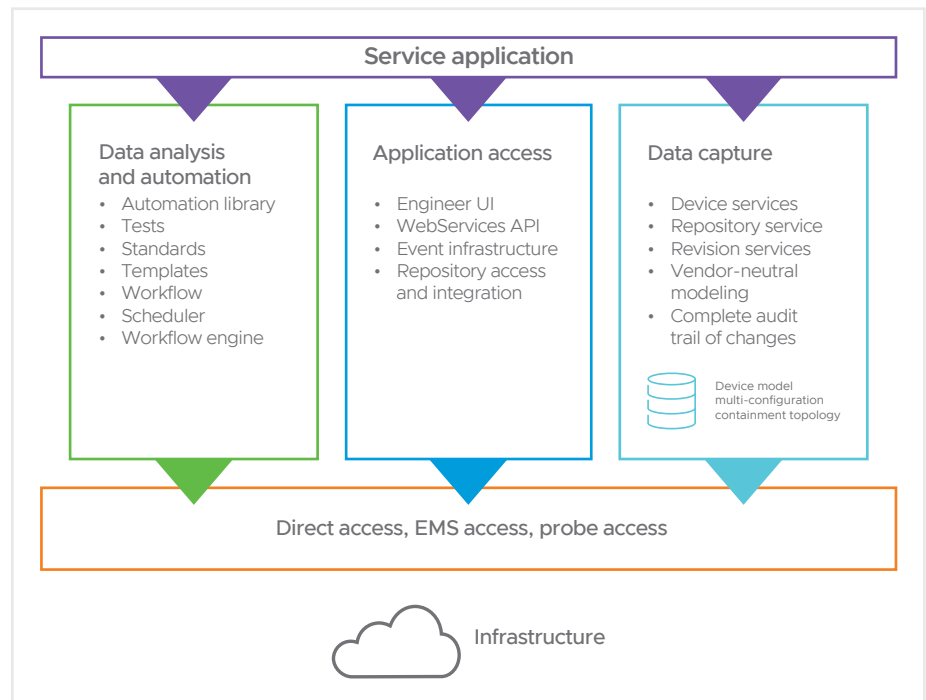


FIGURE 1: Network Configuration Manager's hybrid management architecture.

### SCALE

Approximately 50,000 devices are supported per Network Configuration Manager application server.

- Each application server supports 10 Network Configuration Manager device servers.
- Each Network Configuration Manager device server supports up to 5,000 devices.

The Network Configuration Manager Application Server can manage one or many device servers, which, in turn, can manage thousands of network devices.

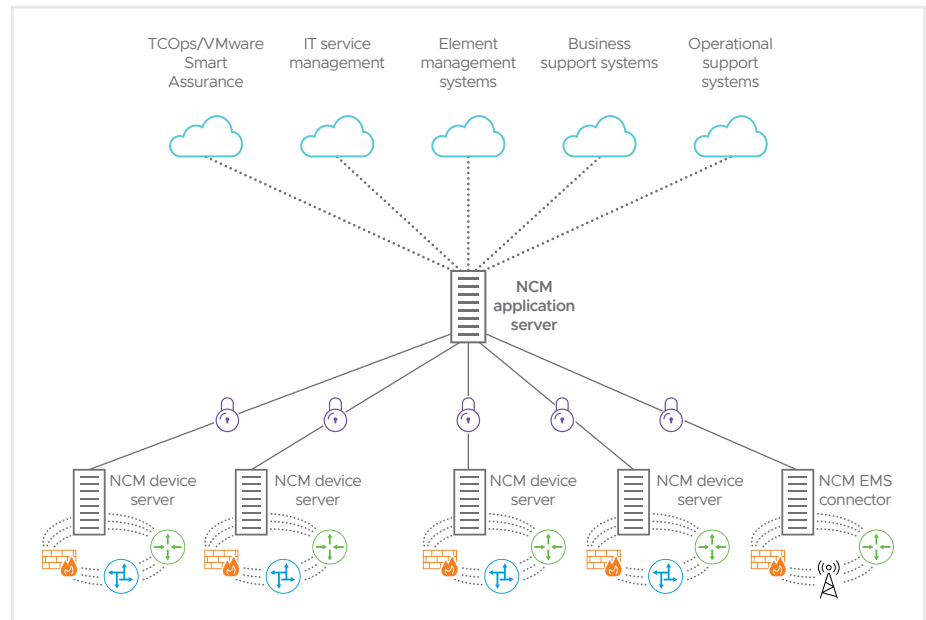


FIGURE 2: Network Configuration Manager's distributed architecture delivers efficiency and scalability.

### Leverage model-based management to your advantage

Network Configuration Manager's extensible hybrid approach combines the advantages of managing and modeling information in a vendor-neutral manner with detailed text-based configurations of vendor-specific information. This unique method handles IT diversity and reduces IT complexity by making it possible to manage change and configuration of legacy and breakthrough technologies from one system—Network Configuration Manager.

Network Configuration Manager's hybrid approach provides a layer of abstraction—including a common information model, a common user interface, and end-to-end visibility—and handles vendor-neutral, normalized information and vendor-specific information. By doing this with one system, organizations can simplify management, improve efficiency, decrease costs, and increase visibility into the network.

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