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Datasheet

NetChange

Network Change Management

Highlights:

- Enhance visibility on network changes, activity, and data inconsistencies
- Reduce operating costs by automating common administrative tasks
- Increase network uptime and availability by minimizing human errors
- Ensure SLA compliance through policy-based deployments
- Simplify network capacity planning process by identifying unused network resources
- Shorten troubleshooting sessions by clearer visibility of the network
- Enhance security and productivity through role-based rights delegation

Maintaining a network infrastructure is a tremendous challenge. Ensuring an accurate audit of the provisioned resources requires efficient processes and time, which many teams simply do not have due to their daily network configuration activities. Common tasks such as VLAN deployment and tagging are rarely delegated or automated, despite the considerable underlying cost they imply.

Worse, these manual yet basic operations can often have a major impact on business - human configuration errors are reported to be the cause of 80% of unplanned outages in IT environments[1].

NetChange from EfficientIP is designed to address these issues, providing you with advanced discovery tools to monitor, track, and consolidate your on-premises provisioned network resources through useful available reporting, thanks to a central network management interface which also allows for the automation and delegation of basic network operations.

[1] *IT Process Institute's Visible Ops Handbook*

Why NetChange

By monitoring your network-provisioned resources such as IP addresses or switch ports, you are provided with the necessary reports to reclaim unused ones or order what's necessary to respect your capacity planning, in order to sustain your business needs.

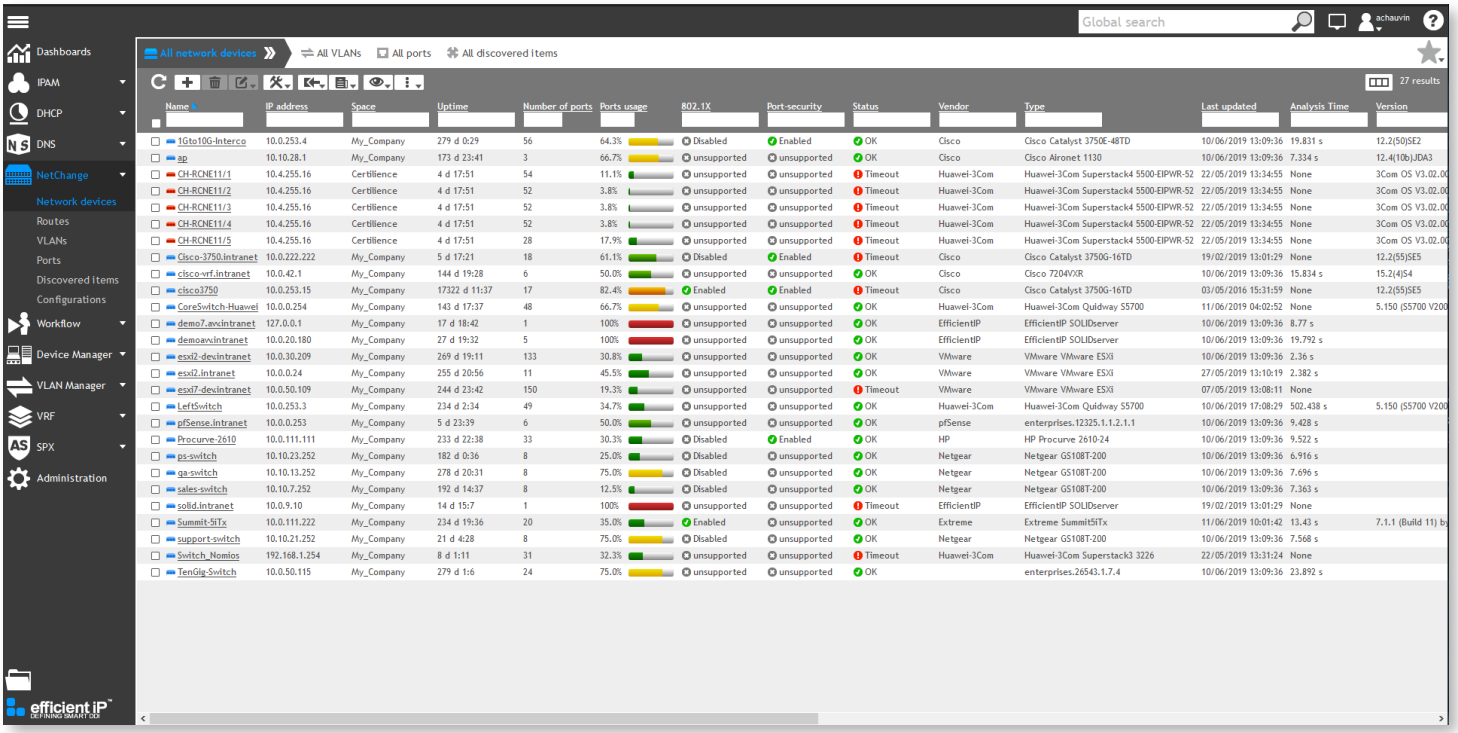
NetChange dramatically reduces your network maintenance expenses by automating your daily network operations. It virtually eliminates costly downtime caused by basic configuration errors. You can delegate common administrative actions while remaining in control of your network, enforcing predefined policies and keeping track of every action through clear audit logs.

Through the centralizing and versioning of your network devices' configuration, NetChange provides you with a practical tool to quickly identify configuration changes over time, improving your capacity to troubleshoot configuration issues.

As NetChange interacts natively with your IP Address Management (IPAM) system, its perspective on the network is perfectly accurate, allowing you to easily identify inconsistencies through clear reporting.

With NetChange, your company can:

- Significantly improve the network provisioning process
- Stop using skilled employees for basic configuration tasks
- Monitor configuration changes for accountability
- Reduce the time spent on resource-draining troubleshooting sessions
- Centrally control and backup your entire network's configurations
- Track devices across your on-premises network to locate them in case of suspicious activity



NetChange: How It Works

Devices and Switch/Router Discovery

The NetChange discovery tool allows you to locally or remotely discover, identify and inventory the physical and virtual devices of your on-premises network, as well as their connections (IP/MAC/VLAN/Switch/Port/Name/VRF). To do so, NetChange makes use of various protocols, such as CDP (Cisco Discovery Protocol), LLDP (Link Layer Discovery Protocol) and SNMP v1/v2c/v3, allowing the retrieval of many configuration items and states. While it uses network resources frugally to build this database, it is nonetheless a quick performer, capable of dealing with over 5000 devices per hour.

NetChange provides comprehensive visibility of network resources deployment and usage, delivering unparalleled control over an organization's network resources provisioning process, retrieving details about actual network configuration from switches and routers:

At device level (switches / routers)	At port and interface level
• Device name • Number of ports • MAC addresses • VLAN(s) • Routes and Route Distinguisher • VRF(s)	• Port slot and ID • Port name • Port speed and duplex • Port POE information (capability / consumption) • Port status • Port traffic statistics • VLAN(s) tagged and untagged • IP addresses (IPv4 and IPv6) • VRF Name and Route Distinguisher

Enrich IPAM information

NetChange gathered information can be pushed towards other management modules. The routing table from a router can be pushed to the IPAM and routes transformed into networks and subnets. This allows quick population of automatically discovered subnets with total control over how they will fit in the IPAM repository. The VLAN database discovered from switches and routers can be pushed to the VLAN manager module of the IPAM in order for that to be completely accurate. As global VLAN management is always complex, this push mechanism allows a control loop between what has been planned as reflected in IPAM and what is actually implemented in the network as populated in NetChange. In addition, built-in data reconciliation enables network teams to automatically identify inconsistencies between NetChange IPLocator and IPAM, such as missing or incorrect IP or MAC addresses or missing Networks. Single or multiple remediation options are consequently offered. This facilitates network validation and increases the quality of IPAM data, making it an accurate, up-to-date, and effective Network Source of Truth.

Unified and Automated Network Configuration Management

NetChange easily integrates administrator-defined policies and automates their deployment, simplifying switch configuration using wizard-driven templates. It enforces best practices and ensures compliance with corporate rules. From a central location, you can systematically apply myriads of settings across all or select groups of switches. These settings include:

- VLAN allocations
- Port trunk assignment
- Port access
- 802.1x parameters
- Port speed and duplex
- Port description
- Port state (up/down)

Discovered Items VRF Mapping

With increasing virtualization being used in modern networks, discovery of network information requires strict mapping with the virtual domain they belong to. Netchange provides such mapping of devices with the VRF engine during the discovery process. The result is available directly in the repository and provides extended visibility over virtualized networks.

Network Configuration Delegation

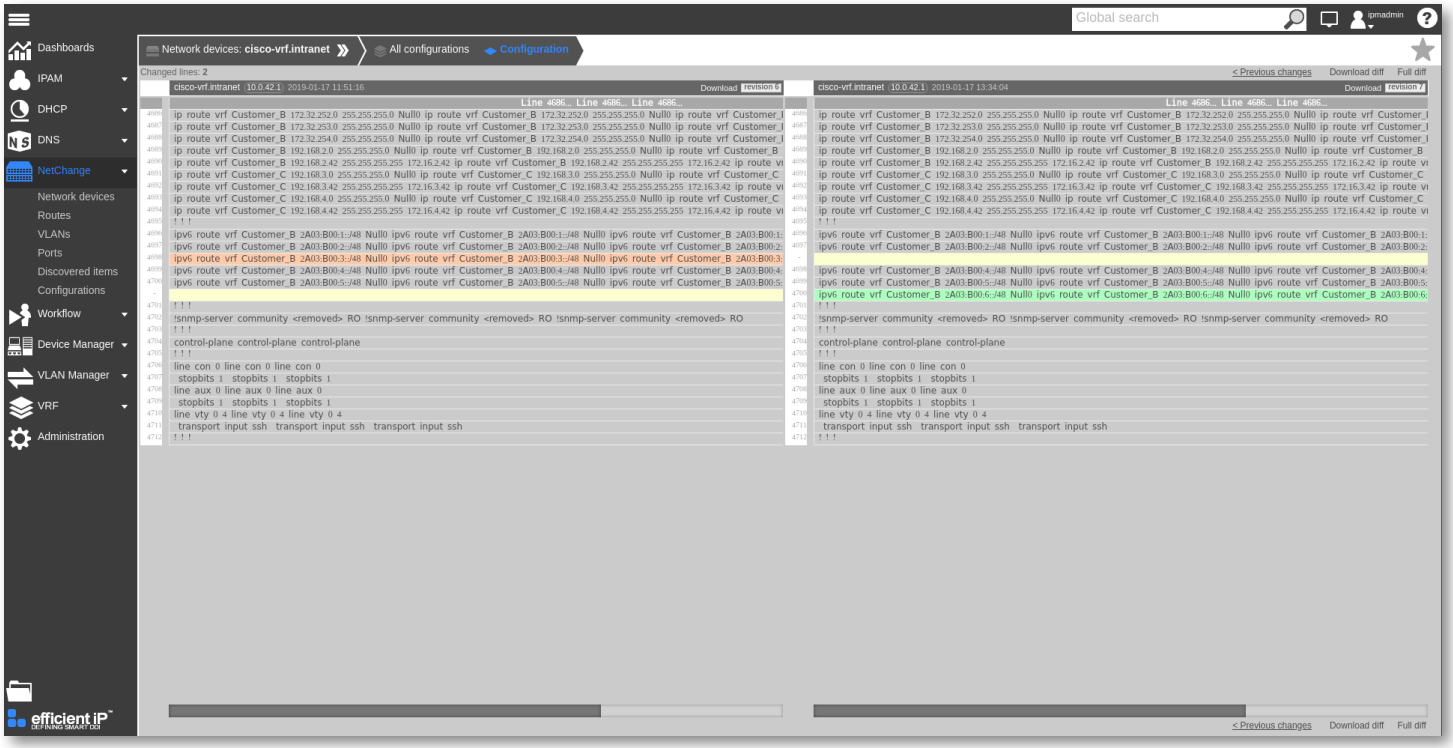
NetChange provides easy, intelligent delegation to control who, how and where network devices are deployed. A common application of such capabilities is to provide low skilled operators the ability to manage the access network ports' configuration from the GUI, while administrators remain in charge of dealing with inter-switch ports, better known as trunk ports. Such setup reduces the risk of human errors and the related possible downtime, while providing quicker responses to the end users.

Network Configuration Backup & Versioning

NetChange also provides a centralized and versioned configuration backup tool. As errors are inevitable, this is a very useful solution to enhance troubleshooting capabilities, allowing you to compare your network's configurations at different points in time. This data often highlights the impacting modification, and ensures it can be corrected quickly.

Network Data Reporting

As NetChange is tightly integrated with the SOLIDserver™ DDI solution and its related modules such as VLANs and Device Manager, it offers all the necessary tools to compare the intended network's configuration with the real one. This allows a complete reconciliation between what is stored in the database, and what is configured on the various network devices.



Providing comprehensive reports and helpful audit tools, NetChange will improve your capacity planning efforts, allowing you to: reclaim unused ports and IP addresses, track and document network configuration changes, correct inconsistent settings, detect IP address conflicts, and highlight unknown devices connected within your IP address spaces.

Network reports examples include:

- Detecting unauthorized MAC addresses or inconsistent MAC-IP address association for troubleshooting
- Reallocating unused IP(s) and network interfaces to avoid purchasing unnecessary, costly devices

Thanks to this massive gathering of information, NetChange's SmartAlerts are able to notify you when network conditions exceed defined thresholds. These thresholds can be simple or very sophisticated, depending on the filters that you set (for example, you might want NetChange to notify you when a switch port occupancy rate is greater than 80% within a range of specific devices dedicated to VoIP services). SmartAlerts allows you to proactively react to your business's growth before any problems arise.

NetChange IPLocator

Customers can license a version of NetChange called NetChange IPLocator, for basic inventory features only. These include discovery, identification and details on on-premises network devices, as well as reports and notifications. Otherwise, the full version of NetChange can be licensed, which provides NetChange's full range of management and configuration functions.

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NetChange/IPAM/DHCP Generate: data comparison

User: ipmadmin
Date: 28/06/2018 14:42

NetChange/IPAM/DHCP Data Comparison Report

NetChange devices not listed in the IPAM and/or the DHCP

IP address	MAC address	DNS name	Device/Slot/Port
10.0.6.55	34:17:eb:ea:8b:aa		LeftSwitch/0/25
10.0.45.45	00:1e:c9:b0:3b:4e		cisco3750/0/9

IP addresses associated with a different MAC address in the IPAM

IP address	MAC address	IPAM MAC address	Device/Slot/Port
10.0.6.99	08:00:27:47:ad:6f	08:00:27:f2:20:04	Procurve-2610/0/24
10.0.20.110	00:50:56:b5:29:62	00:0c:29:1e:6a:eb	cisco3750/0/7
10.0.100.101	00:69:0d:3d:1c:9a	ac:87:a3:07:d1:a1	CoreSwitch-Huawei/0/46

MAC addresses associated with a different IP address in the IPAM

MAC address	IP address	IPAM IP address	Device/Slot/Port
00:21:b7:11:a2:cb	10.0.0.8	10.0.30.19	CoreSwitch-Huawei/0/46
00:22:19:d5:0c:12	10.0.0.17	10.0.0.31	cisco3750/0/8

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