

ManageEngine 

# Network Configuration Manager

網路設備設定檔管理系統

## 您是否有以下困擾？

- 網路設備太多，設定檔管理複雜
- 無法追蹤設定檔變更差異
- 常常因為設定錯誤造成業務中斷
- 例行管理就花費很多時間
- 該如何讓設定檔合乎規定？



這些都要手動做呀？



# 自動化網路設備設定檔管理系統



設定檔變更履歷



差異比較版本管理




















自動化管理





有效降低管理成本

# 透過探索掃描網段內所有設備

- 透過SNMP與CLI取得更多設備資訊

Device Details		<a href="#">Edit device details</a>
IPAddress	: 192.168.50.140	   
Device Name	: 192.168.50.140	
Credential Status	:  SSH 	
Device Template Name	: Cisco IOS Router 	
Associated Tag	:  Associate Tag	
Backup Status	: 	
Syslog Change Detection	: 	
Baseline-Running Conflict	:  Conflict detected	
Startup-Running Conflict	:  Conflict detected	
Running Config	: Current Version ( 1310 ), Baseline Version ( 1 )	
Startup Config	: Current Version ( 52 ), Baseline Version ( 1 )	
Policy Compliance	:  4  5  3	
Last Operation	:  ComplianceCheck	
Last Successful Operation at	: May 27, 2021 09:45 AM	

Device System Information	
Type	: CiscoRouter
Series & Model	: C2951 & CISCO2951/K9
OS Type & OS Version	: IOS& 15.3(2)T
SNMP Credentials	:  Not Available 
System Description	: Not Available
System Location	: Not Available
End Of Sale Date	: Not Available
End Of Support Date	: Not Available
Name	: [NA]
Email	: [NA]
Phone No	: [NA]

Drafts				
Draft Name	Created By	Last Modified On	Base Version	Q
No records to view				

## Discover Your Network

IP / Host Name  IP Range  CSV File Import

v4  v6

Start IP

-  -  -

End IP

-  -  -

NetMask

255.255.255.0















### Credentials






Search

- Select All
- NCM\_CRED\_Snmp\_new 1
- NCM\_CRED\_Snmp\_opm\_Public
- NCM\_CRED\_Snmp\_opm\_Simulator
- Public
- NCM\_CRED\_Snmp\_opm\_chekc

# 網路設備設定檔備份/災難復原

- 備份時，即時檢查 running and startup 設定是否有衝突
- 自動化定期備份，當錯誤或中斷可即時告警
- 當災難發生時，即時回復穩定版本，恢復整體網路運作

Config Changes				
Captured On	Version	Changed by	Config Type	Change Type
Jun 22, 2018 19:01 PM	14	Not Available	Running	 Unauthorized
May 31, 2018 21:01 PM	13	Not Available	Running	 Unauthorized
May 25, 2018 11:01 AM	12	Not Available	Running	 Unauthorized
May 23, 2018 19:01 PM	11	Not Available	Running	 Unauthorized
May 11, 2018 19:16 PM	10	Not Available	Running	 Unauthorized
Apr 23, 2018 21:40 PM	9	"ncm"	Running	 Unauthorized
Apr 17, 2018 14:37 PM	8	"ncm"	Running	 Unauthorized
Apr 17, 2018 14:32 PM	7	"ncm"	Running	 Unauthorized
Apr 16, 2018 12:55 PM	6	"ncm"	Running	 Unauthorized
Apr 13, 2018 15:15 PM	5	"ncm"	Running	 Unauthorized
Apr 13, 2018 13:15 PM	4	"ncm"	Running	 Unauthorized
Apr 05, 2018 20:51 PM	3	NCM User: admin	Running	 Authorized
Mar 30, 2018 13:01 PM	2	Not Available	Running	 Unauthorized
Mar 29, 2018 16:52 PM	1	Not Available	Running	 Authorized

Q    Page 1 of 1  400  View

# 設定檔變更管理

- 可審閱每一次的變更履歷，包含變更人員/時間
- 即時透過 Email/Syslog Msg/SNMP traps 發出變更告警
- 設定檔前後差異比較

Network Configuration Manager System Performance

Config Diff View  Added - (31)  Modified - (339)  Deleted - (76) Diff Only All Lines

Line	LHS	RHS
836	ip wccp redirect exclude in	ip wccp redirect exclude in
837	ip wccp web-cache redirect in	ip wccp web-cache redirect in
838	ip wccp web-cache redirect out	ip wccp web-cache redirect out
839	ip flow monitor NFAmonitor-Deepu input	
840	ip flow ingress	
841	ip flow egress	
842	no ip route-cache	
843	duplex auto	duplex auto
844	speed auto	speed auto
845	timeout absolute 71582 0	timeout absolute 71582 0
846		service-policy type performance-monitor input NFA-POLICY-MEDIANET
847		service-policy type performance-monitor output NFA-POLICY-MEDIANET
848	mace enable	mace enable
859	ip flow-export source GigabitEthernet0/1	
860	ip flow-export version 5	
861	ip flow-export destination 10.10.10.10	
862	ip flow-export destination 10.10.10.10	
881		ip access-list extended NFA-ACL-AVC
882		permit tcp any any
907	ip sla schedule 102 life forever start-time 20:00:42 Dec 14 ageout 60	ip sla schedule 102 life forever start-time 20:00:41 Dec 14 ageout 60
913	ip sla schedule 103 life forever start-time 19:30:04 Dec 15 ageout 60	ip sla schedule 103 life forever start-time 19:30:03 Dec 15 ageout 60
914		ip sla 104
915		udp-jitter 1000 1000 1000 source-ip 10.10.10.10 source-port 1638
		e711ulaw advantage-factor 4

# Configlets 自動化

- 透過NCM，自動化上傳執行設定檔
- 排程執行日常或者除錯指令
- 甚至進階指令，例如更新韌體

Name

Cisco IOS Firmware Upgrade

Execution Mode

Advanced Script Execution Mode

Select Vendor

Cisco

Description

This configlet is used to upgrade firmware in Cisco IOS devices

Associate Tag



No Tags



Select Tag (optional)

Note :The variable name cannot be 'NO\_ENTER' or 'NO\_RESPONSE' as they have predefined meaning.  
Normal variable name should not start with 'LV' or 'for'.  
Loop variable name must start with 'LV'.

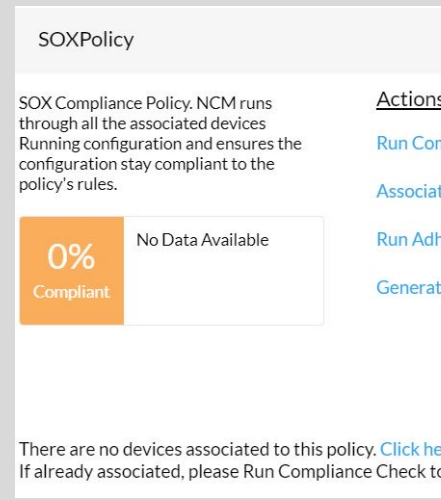
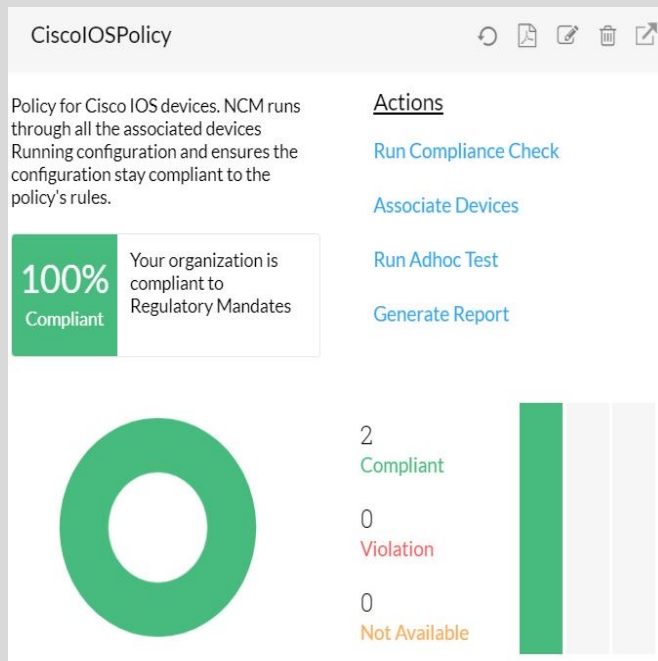
Configlet Content

```
<command Sequence='1' prompt=']?'>copy tftp flash</command>
<command Sequence='2' prompt=']?'>$TFTP_SERVER_IP</command>
<command Sequence='3' prompt=']?'>$SOURCE_FILE_NAME</command>
<command Sequence='4'>$DESTINATION_FILE_NAME</command>
<command Sequence='5' Condition='contains' Value='$DESTINATION_FILE_NAME' Success='6'
Failure='end'>show flash</command>
<command Sequence='6' prompt='confirm']?'>reload</command>
<command Sequence='7'>y</command>
<command Sequence='8'>config t</command>
<command Sequence='9'>boot system $DESTINATION_FILE_NAME</command>
<command Sequence='10'>exit</command>
<command Sequence='11'>show version</command>
```



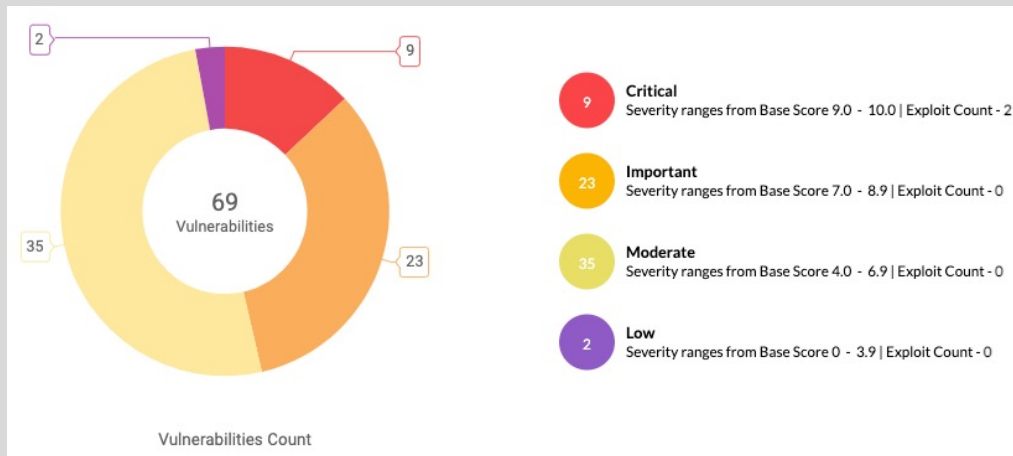
# 合規稽核

- 預設支援
  - HIPPA/SOX/PCI 與 CISCO IOS
- 定期合規檢查
- 輕鬆產出合規報表



# 韌體漏洞管理

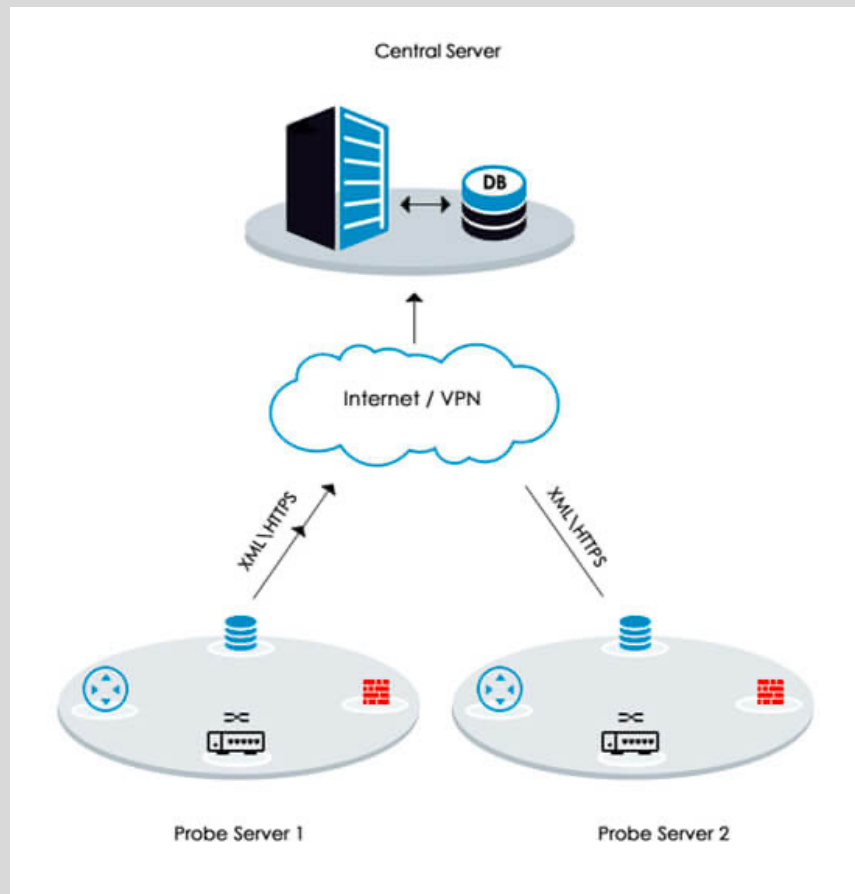
- 即時統計所有網路設備韌體漏洞
- 顯示CVE ID與建議做法
- 可遠端更新韌體



Dashboard	Inventory	Config Automation	Firmware Vulnerabilities	Compliance	Alarms	Tools	Settings	Reports	Support
Network Reports	Configuration Reports	EOL/EOS Report	Compliance Report	Vulnerability & User Reports	PCI Report	Custom Report			
<b>Firmware Inventory</b>									
Device Type	OsType	OsVersion	DeviceCount						
▶ Cisco Router	IOS	11.3(3)	50						
▶ Cisco Router	IOS	15.1(3)T1	2						
▶ Cisco Router	IOS	15.3(2)T	2						
▶ HP Switch	[NA]	[NA]	1						
▶ Juniper SRX	JunOS	9.6R2.11	1						

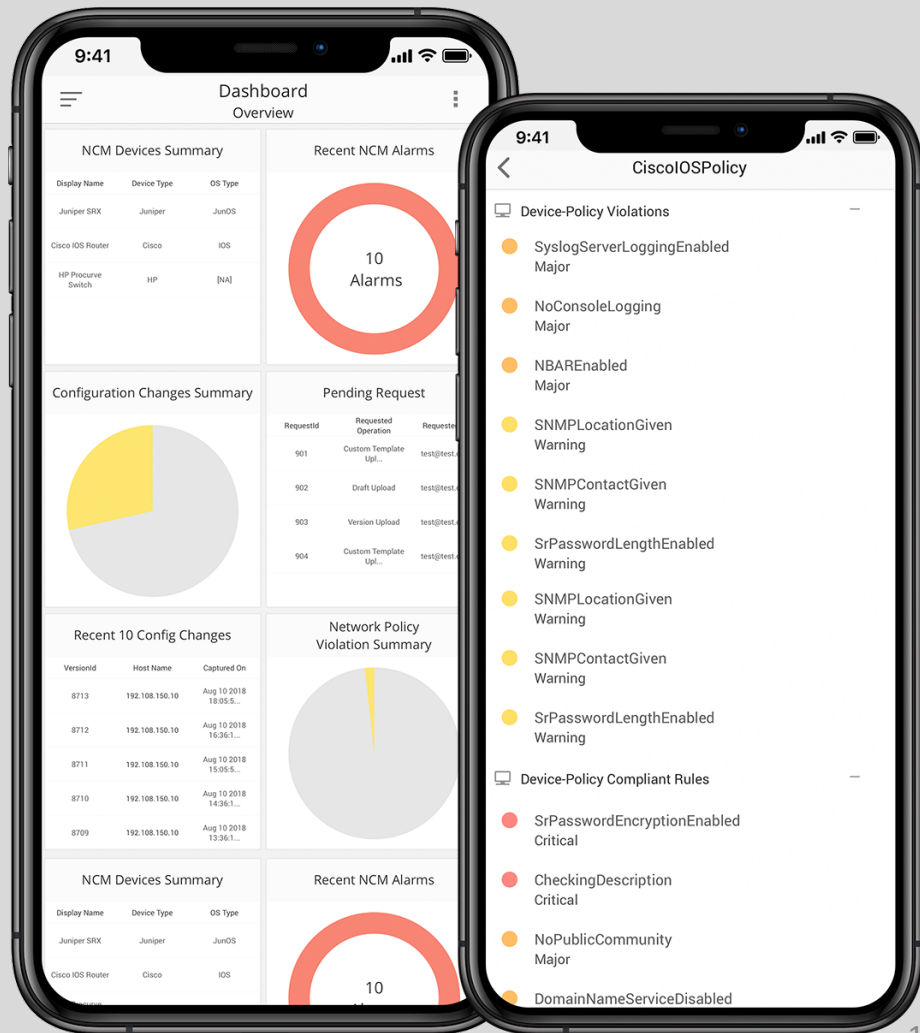
# 支援分散式管理

- 透過探針伺服器，收集外點網路設備資訊
- 並自動回傳中控主機



# 支援行動裝置管理

- 觀察
  - 設定檔變更
  - 合規
  - 使用者行為
  - 設定檔變更
  - Startup-running 差異



# 選擇 NETWORK CONFIGURATION MANAGER

Good Choice

# 支援數十間網路設備廠商



[More..](#)

# Network Configuration Manager協助您

- 自動化！效率化！
  - 時間應該花費在更重要的事情
- 增強資訊安全控管
  - 透過稽核紀錄追蹤設定變更相關資訊
  - 未經授權變更，即時告警
- 快速災難復原
  - 災難發生時，立即回復上一版本設定，儘速恢復

# 硬體需求建議

## Professional Edition

Devices	CPU(Ghz)	RAM(GB)	Disk(GB)
50	2	4	100
200	2.3	4	150
500	2.5	8	200
2000	3	16	300
5000	3	32	500

## Enterprise Edition

Devices	Central			Probe		
	CPU(Ghz)	RAM(GB)	Disk(GB)	CPU(Ghz)	RAM(GB)	Disk(GB)
50	2.5	16	100	2	4	100
200	2.5	16	150	2.3	4	150
500	3	20	200	2.5	8	200
2000	3.5	32	300	3	16	300
5000	3.5	32	500	3	32	500
20000	3.5	48	500	3	32	500



# 系統需求建議

- OS
  - Windows Server 2012 R1 & R2
  - Windows Server 2016
  - Windows Server 2019
- Database
  - MS SQL 2019 (from build 125379) 2017, 2016, 2014, 2012
  - PostgreSQL (內建)
- Protocols
  - SNMP v1/v2/v3, Telnet, SSH v1/v2, and TFTP