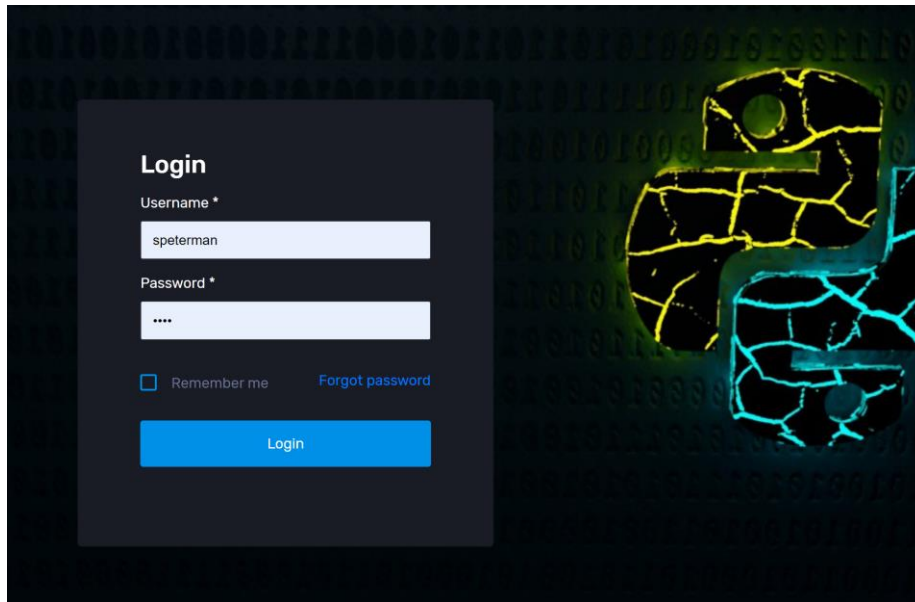


## Examples of Automation by Scott Peterman



Really Ugly Network Tool

- Dashboard
- Search**
  - Devices
  - Configs
  - Part Inventory
    - ARP Tables
    - MAC Tables
    - CDP Neighbors
    - OS Versions
- Audits
- Device Management
- Route Monitor
- Netbrain
- Solarwinds

### NetDB Search - Inventory

A Free String Search From Collected Network Data

String\_to\_Search\_For

Search

### Search Results "Wic"

Device	Matching Line
DRESTN-MPLS-RTR02	line# 4 -> NAME: "4 port clear channel T1/E1 HWIC on Slot 0 SubSlot 0", DESCR: "4 port clear channel T1/E1 HWIC"
FtPierce02	line# 5 -> PID: VWIC-2MFT-T1= , VID: 1.0, SN: 33559348
MX-OKC-UCX-C2921	line# 4 -> NAME: "VWIC3-4MFT-T1/E1 - 4-Port RJ-48 Multiflex Trunk - T1/E1 on Slot 0 SubSlot 0", DESCR: "VWIC3"

Really Ugly Network Tool

- Dashboard
- Search
- Audits**
  - History
  - On Demand

Audit Name	Result	Date
<a href="#">NAC Audit - Access Switches</a>	PASSED	2021-10-01 10:37:54.110662
<a href="#">NAC Audit - Access Switches</a>	PASSED	2021-09-29 11:55:34.864024
<a href="#">NAC Audit - Access Switches</a>	PASSED	2021-09-29 11:09:52.011216

Title: NAC Audit - Access Switches  
Total Audit Result: PASSED  
Date: 2021-09-29 11:55:34.864024

#### Summary Results

```
----- JACFL-FSANG-MDF-STK01 -----  
TACACS: PASSED  
Radius: PASSED - Radius Authentication and has redundancy  
Dot1x_Interface_Compliance: PASSED - All 802.1x configured according to policy on all interfaces in vlan #s: ['30'  
----- JACFL-FSANG-MDF-STK02 -----  
TACACS: PASSED  
Radius: PASSED - Radius Authentication and has redundancy  
Dot1x_Interface_Compliance: PASSED - All 802.1x configured according to policy on all interfaces in vlan #s: ['31'  
----- JACFL-FSANG-IDF-STK01 -----  
TACACS: PASSED  
Radius: PASSED - Radius Authentication and has redundancy  
Dot1x_Interface_Compliance: PASSED - All 802.1x configured according to policy on all interfaces in vlan #s: ['32'  
----- JACFL-FSANG-IDF-STK02 -----  
TACACS: PASSED  
Radius: PASSED - Radius Authentication and has redundancy  
Dot1x_Interface_Compliance: PASSED - All 802.1x configured according to policy on all interfaces in vlan #s: ['33'
```

Route Monitor

Diff Tool

AWS Route Owners

Netbrain

Solarwinds

Documentation

Search

AWS Results For: 10.41.37.111

Matches: Look for longest prefix match

Prefix/Cidr	State	AWS Profile	Tags
10.41.37.0/24	active	logging-oneologinpoweruser	[ ]
10.41.37.0/24	active	logging-oneologinpoweruser	[ { "Key": "Project", "Value": "h03307-ovh-datacenterservices" }, { "Key": "aws:cloudformation:logical-id", "Value": "routeTablePublic" }, { "Key": "aws:cloudformation:stack-id", "Value": "arn:aws:cloudformation:us-east-1:907" }, ]

Really Ugly Network Tool

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Alarms

Devices Monitored



Documentation

SolarWinds Counters - Network Devices Only

[View Full Page](#)

Up	Down	Warning	UnManaged
503	2	273	21

Network Device Status - DOWN

Host	Device Type	Status
 HMPVA-BLDRM-SW101	Cisco Catalyst 29xxStack	Node status is Down Percent Packet Loss threshold is Critical Hardware health monitoring is in Unknown state.
 WFL1052-Stack1-VC	Juniper Networks EX3400-48P	Node status is Down Percent Packet Loss threshold is Critical Hardware health monitoring is in Unknown state.

Really Ugly Network Tool

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Audit Solarwinds

A comparison between Netbrain and Solarwinds

Device Type

router

Run

Running Checks Against Type [Router]

[8/246] Found: ATLGA-MPLS-RTR01.maxcorp.maximus

[9/246] Found: ATLGA-MPLS-RTR02.maxcorp.maximus

[10/246] Found: AUGME-MPLS-RTR01.maxcorp.maximus

[11/246] Found: AUGME-MPLS-RTR02.maxcorp.maximus

[12/246] Found: AUSTX-MPLS-RTR01.maxcorp.maximus

[13/246] Found: AUSTX-MPLS-RTR02.maxcorp.maximus

[14/246] Hostname not in Solarwinds: AUSTX-OAG-RTR01: 10.1.43.253

[15/246] Hostname not in Solarwinds: AUSTX-SToFTX-RTR01: 10.1.43.252

[16/246] Hostname not in Solarwinds: AUSTXSDC-MPLS-RTR01: 10.255.254.250

[17/246] Hostname not in Solarwinds: AUSTXSDC-MPLS-RTR02: 10.255.254.251

[18/246] Found: BALMD-MPLS-RTR01.maxcorp.maximus

[19/246] Found: BALMD-MPLS-RTR02.maxcorp.maximus

[20/246] Found: BOSMA-MPLS-RTR01.maxcorp.maximus

[21/246] Found: BOSMA-MPLS-RTR02.maxcorp.maximus

Netmiko Proxy - ReDoc

127.0.0.1:8000/redoc

Search...

GET Users Get All

POST User Post By Name

GET Users Get By Name

PUT User Put By Name

DEL User Delete By Name

POST Login

POST Ttp Parser

POST Netmiko Command

Documentation Powered by ReDoc

## Netmiko Proxy (0.0.1)

Download OpenAPI specification: [Download](#)

Netmiko and utilities proxy agent. Author: Scott Peterman

### Users Get All

#### Responses

> 200 Successful Response

#### Response samples

200

Content type  
application/json

Copy Expand all Collapse all

null

POST /users

MainWindow

File Examples Help

Text To Parse Load Save

```
interface Loopback0
description Router-id-loopback
ip address 192.168.0.113/24
!
interface Vlan778
description CPE_Acces_Vlan
ip address 2002::fd37/124
ip vrf CPE1
!
```

TTP Template Load Save

```
interface {{ interface }}
ip address {{ ip }}/{{ mask }}
description {{ description }}
ip vrf {{ vrf }}
```

Render

Result Output

```
[
  {
    "description": "Router-id-loopback",
    "interface": "Loopback0",
    "ip": "192.168.0.113",
    "mask": "24"
  },
  {
    "description": "CPE_Acces_Vlan",
    "interface": "Vlan778",
    "ip": "2002::fd37",
    "mask": "124",
    "vrf": "CPE1"
  }
]
```

Proxy

TTP Templates

Docs » Writing templates

### Writing templates

Writing templates is simple.

To create template, take data that needs to be parsed and replace portions of it with match variables:

```
# Data we want to parse
interface Loopback0
description Router-id-loopback
ip address 192.168.0.113/24
!
interface Vlan778
description CPE_Acces_Vlan
ip address 2002::fd37/124
ip vrf CPE1
!

# TTP template
interface {{ interface }}
ip address {{ ip }}/{{ mask }}
description {{ description }}
ip vrf {{ vrf }}
```

Above data and template can be found in book

Netbrain + SolarWinds Console

File Tools Help

Maximus:

- Salt Lake City, UT [0]
- Denver, CO - Broadway [4]
  - DENCO-MPLS-RTR02 (10.215.3.22)
  - DENCO-MPLS-RTR01 (10.215.3.21)
  - DENCO-CORE-MLS01 (10.215.3.201)
  - DENCO-MDF-STK01 (10.215.3.253)
- Albany, NY - 11 Corp Woods [51]
- New York, NY - 30 Broad Street [19]
- Albany, NY - 833 Broadway [17]
- Atlanta, GA [5]
- Austin, TX [6]
- Baltimore, MD/Baltimore, MD - 1 N Charles St [3]
- Boston, MA [14]

Polling Solarwinds API at: uvaapmmweb01slw.maxcorp.maximus

NodeID : 832

DisplayName : Denco-MPLS-RTR01.maxcorp.maximus

Category : 1

Vendor : Cisco

IP : 10.215.3.21

Description : Cisco 4331 ISR

Status : 1

StatusDescription : Node status is Up.

SysObjectID : 1.3.6.1.4.1.9.1.2068

URL : [View In SolarWinds](#)

Search CMDB

File

checkpoint ?

Search By

☐ IP ☐ Hostname ☐ S/N ☐ Site ☐ Model ☒ Vendor

Results

JEFMO-MIDM-MPLS-RTR01

Detail

name : JEFMO-MIDM-MPLS-RTR01

mgmtIP : 10.1.160.251

mgmtIntf :

subTypeName : Checkpoint Firewall

vendor : Checkpoint

model : ISR4331/K9

ver : 16.6.2

sn : FLM2149V186

site : My Network\Jefferson City, MO - MIDM

loc : Jefferson City , MO - maxim-jeffersonc-20684713e005

contact :

mem : 3937034264

assetTag :

layer :

descr :

MainWindow

File Tools Help

Search

Connect Disconnect

acc0.okla.ok.hp.uplink

acc1.okla.ok

acc2.okla.ok

acc3.okla.ok

acc4.okla.ok

PHRTX-ACC-STK01

PHRTX-ACC-STK02

PHRTX-ACC-STK03

PHRTX-ACC-STK04

Compiled Thu 21-Jul-11 01:34 by prod\_rel\_team

ROM: Bootstrap program is C3560E boot loader

BOOTLDR: C3560E Boot Loader (C3560X-HBOOT-M) Version 12.2(53r)SE2, RELEASE SOFTWARE (fc1)

acc1.okla.ok uptime is 1 year, 2 weeks, 5 days, 19 hours, 41 minutes

System returned to ROM by power-on

System image file is "flash:/c3560e-universalk9-mz.122-58.SE2/c3560e-universalk9-mz.122-58.SE2.bin"

This product contains cryptographic features and is subject to United States and local country laws governing import, export, transfer and use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute or use encryption. Importers, exporters, distributors and users are responsible for compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products may be found at :

<http://www.cisco.com/wvl/export/crypto/tool/stgrg.html>

acc1.okla.ok>

Log + -