

# Obtain Running Configuration of Multiple Cedges Using API Call

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## Introduction

This document describes how to use some of the API calls available in vManage and how you can adapt it to run it using an script.

## Problem

Information that you can require from vManage is not always easy to collect if the overlay contains hundreds or thousands of Cisco Edge Routers.

Example:

Most simple way to get running configuration of single Cisco Edge Router is navigate to **Configuration > Devices > Wan Edge List** click ellipsis (...) and **Running Configuration**. Then you have to select and copy all the configuration and save in another file like .txt format. However, the problem comes up when you want to get the configuration of multiple Cisco Edge Routers making this task exhausting and time consuming.

The screenshot shows the Catalyst SD-WAN vManage interface. The top navigation bar includes the title 'Catalyst SD-WAN' and user information 'admin'. A sidebar on the left contains navigation links: Monitor, Configuration, Analytics, Workflows, Tools, Reports, Maintenance, Administration, and Explore. The main content area is titled 'Devices' and contains a 'WAN Edge List' tab. Below the tab is a search bar with the text 'Q. cedge'. A table titled 'WAN Edge List (7/527)' displays a list of devices. The table has columns: Site Name, Hostname, Tags, Config Locked, Managed By, Device Status, Version, Reachability, Site ID, Mode, Config Group, and Assigned Template. A dropdown menu is open for the 'SITE\_204' row, showing options: Running Configuration, Local Configuration, Delete WAN Edge, Config Unlock, Change Device Values, Template Log, and Device Bring Up. The 'Running Configuration' option is highlighted. The table data is as follows:

| Site Name | Hostname | Tags    | Config Locked | Managed By               | Device Status | Version          | Reachability | Site ID | Mode    | Config Group | Assigned Template |
|-----------|----------|---------|---------------|--------------------------|---------------|------------------|--------------|---------|---------|--------------|-------------------|
| SITE_101  | cedge1   | Add Tag | Yes           | Template C8k-Template-V1 | In Sync       | 17.14.01a.0.1470 | ↑            | 101     | vmanage | -            | C8k-Template-V1   |
| SITE_202  | cedge2   | Add Tag | Yes           | Template C8k-Template-V1 | In Sync       | 17.14.01a.0.1470 | ↑            | 202     | vmanage | -            | C8k-Template-V1   |
| SITE_203  | cedge3   | Add Tag | Yes           | Template C8k-Template-V1 | In Sync       | 17.14.01a.0.1470 | ↑            | 203     | vmanage | -            | C8k-Template-V1   |
| SITE_204  | cedge4   | Add Tag | Yes           | Template C8k-Template-V1 | In Sync       | 17.14.01a.0.1470 | ↑            | 204     | vmanage | -            | C8k-Template-V1   |
| SITE_205  | cedge5   | Add Tag | Yes           | Template C8k-Template-V1 | In Sync       | 17.14.01a.0.1470 | ↑            | 205     | vmanage | -            | C8k-Template-V1   |
| SITE_206  | cedge6   | Add Tag | Yes           | Template C8k-Template-V1 | In Sync       | 17.14.01a.0.1470 | ↑            | 206     | vmanage | -            | C8k-Template-V1   |
| SITE_207  | cedge7   | Add Tag | Yes           | Template C8k-Template-V1 | In Sync       | 17.14.01a.0.1470 | ↑            | 207     | vmanage | -            | C8k-Template-V1   |

Catalyst SD-WAN

The network is out of compliance due to licensing, please [click here](#) for more actions.

## Devices

### WAN Edge List

Control Components   Unclaimed WAN Edges

WAN Edge List (7/527)

Q cedge

Export Bootstrap Configuration   Sync Smart Account   Add PAYG WAN Edges   Upload WAN Edge List

| Site Name | Hostname | Tags                    | Config Locked | Managed By               | Device Status | Version          | Reachability |
|-----------|----------|-------------------------|---------------|--------------------------|---------------|------------------|--------------|
| SITE_101  | cedge1   | <a href="#">Add Tag</a> | Yes           | Template C8k-Template-V1 | In Sync       | 17.14.01a.0.1470 | ↑            |
| SITE_202  | cedge2   | <a href="#">Add Tag</a> | Yes           | Template C8k-Template-V1 | In Sync       | 17.14.01a.0.1470 | ↑            |
| SITE_203  | cedge3   | <a href="#">Add Tag</a> | Yes           | Template C8k-Template-V1 | In Sync       | 17.14.01a.0.1470 | ↑            |
| SITE_204  | cedge4   | <a href="#">Add Tag</a> | Yes           | Template C8k-Template-V1 | In Sync       | 17.14.01a.0.1470 | ↑            |
| SITE_205  | cedge5   | <a href="#">Add Tag</a> | Yes           | Template C8k-Template-V1 | In Sync       | 17.14.01a.0.1470 | ↑            |
| SITE_206  | cedge6   | <a href="#">Add Tag</a> | Yes           | Template C8k-Template-V1 | In Sync       | 17.14.01a.0.1470 | ↑            |
| SITE_207  | cedge7   | <a href="#">Add Tag</a> | Yes           | Template C8k-Template-V1 | In Sync       | 17.14.01a.0.1470 | ↑            |

## Running Configuration

Host: 40.40.40.1  
Site ID: 204  
Device Model: C8000v

```

system
system-ip 40.40.40.1
overlay-id 1
site-id 204
no transport-gateway enable
port-offset 0
control-session-pps 300
admin-tech-on-failure
sp-organization-name CISCONTPLAB
organization-name CISCONTPLAB
port-hop
track-transport
track-default-gateway
console-baud-rate 9600
no on-demand enable
on-demand idle-timeout 10
vbond 192.168.51.117 port 12346
!
banner login \x03Un authorised Logins tracked\x03
banner motd \x03Restricted Use\x03
service timestamps debug datetime msec
service timestamps log datetime msec
service tcp-keepalives-in
no service tcp-small-servers
no service udp-small-servers
hostname cedge4
username admin privilege 15 secret 9
$9$3V6L3V6L2VU2K$yspX0d8Rj9KgmMmfmHdShkdaMmhtzGaUpqg8pfTo
vrf definition 10
description Corporate
  
```

[Feedback](#)

[Close](#)

## Overview of API Call

This procedure is an example of how you can use a simple API call to get all the information required.

Step 1.

Log in to **vManage** as normal using the URL or IP address.

Catalyst SD-WAN

The network is out of compliance due to licensing, please [click here](#) for more actions.

## Monitor

All Sites

### Overview

Devices   Applications   Security   Multicloud   Tunnels   Logs

Control Components: 1 Validator, 2 Controller, 1 Manager

WAN Edges: 7 Reachable, 1 Unreachable

Certificate Status: 1 Warning, 3 Invalid

Licensing: 0 Assigned, 8 Unassigned

Reboot: 0 Last 24 hrs

24 Hours

### Site Health

Poor Performing Sites

9 Sites

| Site name | Usage (GB) |
|-----------|------------|
| SITE_202  | 0          |
| SITE_203  | 0          |
| SITE_10   | 0          |
| SITE_207  | 0          |
| SITE_206  | 0          |

Legend: Good (Green), Fair (Yellow), Poor (Red)

Current (Red), Previous 24 hrs (Grey)

### Tunnel Health

Latency (ms) Fair Tunnels

72 Tunnels

| Tunnel                     | Latency (ms) |
|----------------------------|--------------|
| cedge3.mpls-cedge4.m...    | 38.40        |
| cedge3.biz-internet-ced... | 32.89        |
| cedge2.biz-internet-ced... | 38.45        |
| cedge4.biz-internet-ced... | 32.88        |
| cedge1.mpls-cedge5.mpls    | 27.22        |

Legend: Good (Green), Fair (Yellow), Poor (Red)

Current (Yellow), Previous 24 hrs (Grey)

Step 2.

Open a new tab **browser** and then copy and paste the **URL** of vManage and add the **suffix /apidocs** (<https://172.18.121.103:15256/apidocs>).

Not Secure https://172.18.121.103:15256/apidocs/

Cisco vmanageapi.json Explore

## Cisco SD-WAN vManage API 2.0.0 OAS3

vmanageapi.json

The vManage API exposes the functionality of operations maintaining devices and the overlay network

[Contact the developer](#)  
[Commercial License](#)

Servers  
 /dataservice

Filter by tag

- Administration - Audit Log
- Administration - User and Group
- Certificate Management - Device
- Certificate Management - vManage
- Client - Security
- Client - UI
- Cluster Management

Step 3.

In the search box, type **Monitoring - Device Details**.

Monitoring - Device Details

### Monitoring - Device Details

- GET /data/device/state/{state\_data\_type}
- GET /data/device/state/{state\_data\_type}/fields
- GET /data/device/state/{state\_data\_type}/query
- GET /device
- POST /device/blockSync
- GET /device/config

Step 4.

In order to get the configuration of one device you have to try out /device/config **API call**.

GET /device/config

Get device running configuration

Parameters

[Try it out](#)

| Name                                  | Description    |
|---------------------------------------|----------------|
| <b>deviceId</b> <span>required</span> | Device Id list |
| array[string]<br>(query)              |                |

Step 5.

Enter the **System-IP** of one Cisco Edge Router and run the **API call**.

GET /device/config

Get device running configuration

Parameters

Name

Description

deviceId \* required  
array(string)  
(query)

Device Id list

10.10.10.1

-

Add Item

Execute

Responses

Curl

This curl can be used to run scripts

curl -X GET "https://172.18.121.103:15256/dataservice/device/config?deviceId=10.10.10.1" -H "accept: text/plain" -H "X-XSRF-TOKEN: A7BBCBCFA4F0D32644D071247F7C087556F8EE0C7BEF9B434C4CF4EE2D708005B9EABC14354244005A30500BE468DB3BC010"

Request URL

https://172.18.121.103:15256/dataservice/device/config?deviceId=10.10.10.1

Server response

Code

Details

200

Response body

In this section you can see the configuration of device.

```
system
system-ip      10.10.10.1
overlay-id     1
site-id        101
no transport-gateway enable
port-offset    0
control-session-pps 300
admin-tech-on-failure
sp-organization-name CISCORTPLAB
organization-name CISCORTPLAB
port-hop
track-transport
track-default-gateway
console-baud-rate 9600
no on-demand enable
on-demand idle-timeout 10
vbond 192.168.51.117 port 12346
!
banner login \x03Un authorised Logins tracked\x03
banner motd \x03Restricted Use\x03
service timestamps debug datetime msec
service timestamps log datetime msec
service tcp-keepalives-in
service tcp-keepalives-out
no service tcp-small-servers
no service udp-small-servers
hostname cedge1
username admin privilege 15 secret 9 $9$3V6L3V6L2VUI2k$ysPnX0dg8RLj9KgMdmfHdSHKdaPmiHzGaUpcqH6pfTo
```

This option downloads html file with the configuration.

Download

## Using Curl in Script

A better option is to use an API call in a script to generate configuration files of Cisco Edge Routers.

Step 1.

First, in the shell or CLI command line, create a **folder** where all backup files are stored.

```
lufrias@LUFRIAS-M-P9Q2 Desktop % mkdir Backup_cedges
lufrias@LUFRIAS-M-P9Q2 Desktop % cd Backup_cedges
lufrias@LUFRIAS-M-P9Q2 Backup_cedges % pwd
/Users/lufrias/Desktop/Backup_cedges
lufrias@LUFRIAS-M-P9Q2 Backup_cedges %
```

Step 2.

Create a .txt file with all the system-IP addresses of the Cisco Edge Routers that backup is required. System-IP address list you can get from vManage and export CSV file.

It is needed to **name** the file as System-IPs.txt and **save** it in the same directory that was previously created (Backup\_cedges).

Catalyst SD-WAN

The network is out of compliance due to licensing, please [click here](#) for more actions.

Snooze

Monitor

Configuration

Analytics

Workflows

Tools

Reports

Maintenance

Administration

Explore

Devices

WAN Edge List

Control Components

Unclaimed WAN Edges

WAN Edge List (7/527)

Export

Q cedge

Export Bootstrap Configuration

Sync Smart Account

Add PAYG WAN Edges

Upload WAN Edge List

As of: Aug 27, 2025 11:40 AM

| Chassis Number                           | Site Name | Hostname | Tags                    | Config Locked | Managed By               | Device Status | Version         | Reachability | Site ID | Mode    | Actions |
|------------------------------------------|-----------|----------|-------------------------|---------------|--------------------------|---------------|-----------------|--------------|---------|---------|---------|
| CBK-D4105C39-2EAE-2B27-122A-F6C0F72EE1B4 | SITE_201  | cedge1   | <a href="#">Add Tag</a> | Yes           | Template CBK-Template-V1 | In Sync       | 1714.01a.0.1470 | ↑            | 101     | vmanage | ...     |
| CBK-121CA2D0-41E6-2217-C121-DEE1B4D0A8AE | SITE_202  | cedge2   | <a href="#">Add Tag</a> | Yes           | Template CBK-Template-V1 | In Sync       | 1714.01a.0.1470 | ↑            | 202     | vmanage | ...     |
| CBK-02E80530-267B-DC53-F8B4-24AF3D4D29D4 | SITE_203  | cedge3   | <a href="#">Add Tag</a> | Yes           | Template CBK-Template-V1 | In Sync       | 1714.01a.0.1470 | ↑            | 203     | vmanage | ...     |
| CBK-EE98CF9C-18E7-4714-A579-2DEB43E2DF86 | SITE_204  | cedge4   | <a href="#">Add Tag</a> | Yes           | Template CBK-Template-V1 | In Sync       | 1714.01a.0.1470 | ↑            | 204     | vmanage | ...     |
| CBK-62F690FE-0226-F996-485A-EA611A91C2B2 | SITE_205  | cedge5   | <a href="#">Add Tag</a> | Yes           | Template CBK-Template-V1 | In Sync       | 1714.01a.0.1470 | ↑            | 205     | vmanage | ...     |
| CBK-76AFD19D-9AFB-134B-E556-F1D0B790A48A | SITE_206  | cedge6   | <a href="#">Add Tag</a> | Yes           | Template CBK-Template-V1 | In Sync       | 1714.01a.0.1470 | ↑            | 206     | vmanage | ...     |
| CBK-964D392C-E19D-14F7-8E4C-F13B8A850C0B | SITE_207  | cedge7   | <a href="#">Add Tag</a> | Yes           | Template CBK-Template-V1 | In Sync       | 1714.01a.0.1470 | ↑            | 207     | vmanage | ...     |

System-IPs.txt

1 10.10.10.1

2 20.20.20.1

3 30.30.30.1

4 40.40.40.1

5 50.50.50.1

6 60.60.60.1

7 70.70.70.1

8

Step 3.

Confirm that file is saved.

```
lufrias@LUFRIAS-M-P9Q2 Backup_cedges % ls -l
```

```
total 8
-rw-r--r--@ 1 lufrias  staff  77 Aug 27 12:20 System-IPs.txt
lufrias@LUFRIAS-M-P9Q2 Backup_cedges %
```

Step 4.

Proceed to create the **script**. It is possible to use vi or any notepad, just be careful to save it with .sh format.

```
#!/bin/bash

#Define your variables

echo "Please type vManage URL in following format"
echo "https://172.18.121.103:15256 or https://vmanage.cisco.com"

read VMANAGE

echo "Please enter username to access vmanage"

read USER

echo "Password:"

read PASSWORD


#DEFINING THE API CALLS TO LOGIN AND BODY

security_url="$VMANAGE/j_security_check"

credentials="j_username=$USER&j_password=$PASSWORD"


#EXECUTE THE API CALL TO LOGIN TO THE VMANAGE.

curl --request POST --silent --insecure -c cookies.txt --url $security_url --data $credentials


#EXECUTE THE API CALL TO GET A TOKEN

TOKEN=$(curl "$VMANAGE/dataservice/client/token" -X GET -b cookies.txt -s --insecure)

arr_csv=()

while IFS= read -r line
do

    arr_csv+=("$line")

    curl --insecure -b cookies.txt -H "accept: text/plain" -H "X-XSRF-TOKEN: $TOKEN" -X GET "$VMANAGE/
```

```

    echo $line
done < System-IPs.txt

echo "Running config was collected from following System_IPs:"

index=0

for record in "${arr_csv[@]}"
do
    echo "Record at index- $\{index\}$  : $record"
    ((index++))
done

curl "$VMANAGE/logout" -b cookies.txt --silent --insecure -H "X-XSRF-TOKEN: $TOKEN"

echo "Check files, if they are empty or with message "Bad request" check user and password"

```

Step 5.

Change **privilege of the file** so that it can be run.

```

lufrias@LUFRIAS-M-P9Q2 Backup_cedges % ls -l
total 16
-rw-r--r--@ 1 lufrias  staff    77 Aug 27 12:20 System-IPs.txt
-rw-r--r--  1 lufrias  staff  1174 Aug 27 12:47 config_backup_script.sh
lufrias@LUFRIAS-M-P9Q2 Backup_cedges %
lufrias@LUFRIAS-M-P9Q2 Backup_cedges %
lufrias@LUFRIAS-M-P9Q2 Backup_cedges % chmod +x config_backup_script.sh
lufrias@LUFRIAS-M-P9Q2 Backup_cedges %
lufrias@LUFRIAS-M-P9Q2 Backup_cedges % ls -l
total 16
-rw-r--r--@ 1 lufrias  staff    77 Aug 27 12:20 System-IPs.txt
-rwxr-xr-x  1 lufrias  staff  1174 Aug 27 12:47 config_backup_script.sh
lufrias@LUFRIAS-M-P9Q2 Backup_cedges %

```

Step 6.

Run the script using **./config\_backup\_script.sh** command. Consider that this takes some time to be completed depending on quantity of devices.

```

lufrias@LUFRIAS-M-P9Q2 Backup_cedges % ./config_backup_script.sh
Please type vManage URL in following format
https://172.18.121.103:15256 or https://vmanage.cisco.com

```

https://172.18.121.103:15256

Please enter username to access vmanage

admin

Password:

qwerty1234Q

| % Total    | % Received | % Xferd    | Average Speed | Time          | Time     | Time     | Current |
|------------|------------|------------|---------------|---------------|----------|----------|---------|
|            |            |            | Dload Upload  | Total         | Spent    | Left     | Speed   |
| 100 7238   | 0 7238     | 0 0        | 1133 0        | --:--:--      | 0:00:06  | --:--:-- | 1761    |
| 10.10.10.1 | % Total    | % Received | % Xferd       | Average Speed | Time     | Time     | Current |
|            |            |            | Dload Upload  | Total         | Spent    | Left     | Speed   |
| 100 7218   | 0 7218     | 0 0        | 1799 0        | --:--:--      | 0:00:04  | --:--:-- | 1800    |
| 20.20.20.1 | % Total    | % Received | % Xferd       | Average Speed | Time     | Time     | Current |
|            |            |            | Dload Upload  | Total         | Spent    | Left     | Speed   |
| 100 7225   | 0 7225     | 0 0        | 1978 0        | --:--:--      | 0:00:03  | --:--:-- | 1978    |
| 30.30.30.1 | % Total    | % Received | % Xferd       | Average Speed | Time     | Time     | Current |
|            |            |            | Dload Upload  | Total         | Spent    | Left     | Speed   |
| 100 7225   | 0 7225     | 0 0        | 1491 0        | --:--:--      | 0:00:04  | --:--:-- | 2031    |
| 40.40.40.1 | % Total    | % Received | % Xferd       | Average Speed | Time     | Time     | Current |
|            |            |            | Dload Upload  | Total         | Spent    | Left     | Speed   |
| 100 7225   | 0 7225     | 0 0        | 2717 0        | --:--:--      | 0:00:02  | --:--:-- | 2718    |
| 50.50.50.1 | % Total    | % Received | % Xferd       | Average Speed | Time     | Time     | Current |
|            |            |            | Dload Upload  | Total         | Spent    | Left     | Speed   |
| 100 7225   | 0 7225     | 0 0        | 1610 0        | --:--:--      | 0:00:04  | --:--:-- | 1641    |
| 60.60.60.1 | % Total    | % Received | % Xferd       | Average Speed | Time     | Time     | Current |
|            |            |            | Dload Upload  | Total         | Spent    | Left     | Speed   |
| 100 7225   | 0 7225     | 0 0        | 1668 0        | --:--:--      | 0:00:04  | --:--:-- | 1668    |
| 70.70.70.1 | % Total    | % Received | % Xferd       | Average Speed | Time     | Time     | Current |
|            |            |            | Dload Upload  | Total         | Spent    | Left     | Speed   |
| 100 40     | 0 40       | 0 0        | 108 0         | --:--:--      | --:--:-- | --:--:-- | 107     |
| 80.80.80.1 |            |            |               |               |          |          |         |

Running config was collected from following System\_IPs:

Record at index-0 : 10.10.10.1

Record at index-1 : 20.20.20.1

Record at index-2 : 30.30.30.1

Record at index-3 : 40.40.40.1

Record at index-4 : 50.50.50.1

Record at index-5 : 60.60.60.1

Record at index-6 : 70.70.70.1

Record at index-7 : 80.80.80.1

<html><head><title>Error</title></head><body>Method Not Allowed</body></html>Check files, if they are e

lufrias@LUFRIAS-M-P9Q2 Backup\_cedges %

Step 7.

Finally, check files are there with **ls -l** command.

lufrias@LUFRIAS-M-P9Q2 Backup\_cedges % ls -l

total 152

-rw-r--r-- 1 lufrias staff 7238 Sep 11 10:06 10.10.10.1.txt

-rw-r--r-- 1 lufrias staff 7218 Sep 11 10:06 20.20.20.1.txt

-rw-r--r-- 1 lufrias staff 7225 Sep 11 10:06 30.30.30.1.txt

```

-rw-r--r-- 1 lufrias staff 7225 Sep 11 10:06 40.40.40.1.txt
-rw-r--r-- 1 lufrias staff 7225 Sep 11 10:06 50.50.50.1.txt
-rw-r--r-- 1 lufrias staff 7225 Sep 11 10:06 60.60.60.1.txt
-rw-r--r-- 1 lufrias staff 7225 Sep 11 10:07 70.70.70.1.txt
-rw-r--r-- 1 lufrias staff 40 Sep 11 10:07 80.80.80.1.txt
-rw-r--r--@ 1 lufrias staff 88 Sep 10 11:48 System-IPs.txt
-rwxr-xr-x 1 lufrias staff 1352 Sep 11 09:49 config_backup_script.sh
-rw-r--r-- 1 lufrias staff 288 Sep 11 10:06 cookies.txt
lufrias@LUFRIAS-M-P9Q2 Backup_cedges %

```

Check **configuration file**.

```

lufrias@LUFRIAS-M-P9Q2 Backup_cedges % more 10.10.10.1.txt
system
system-ip          10.10.10.1
overlay-id         1
site-id            101
no transport-gateway enable
port-offset        0
control-session-pps 300
admin-tech-on-failure
sp-organization-name CISCORTPLAB
organization-name   CISCORTPLAB
port-hop
track-transport
track-default-gateway
console-baud-rate   9600
no on-demand enable
on-demand idle-timeout 10
vbond 192.168.51.117 port 12346

```

If files are empty or with an error message “Bad request” please check the **authentication username** and **password**.

```

lufrias@LUFRIAS-M-P9Q2 Backup_cedges % more 30.30.30.1.txt
Bad Request
lufrias@LUFRIAS-M-P9Q2 Backup_cedges %

```

If file shows "No device found for system IP" that means the system IP does not exist in vManage. You must correct System-IPs.txt and delete wrong System-IP.

```

lufrias@LUFRIAS-M-P9Q2 Backup_cedges % more 80.80.80.1.txt
No device found for system IP 80.80.80.1
lufrias@LUFRIAS-M-P9Q2 Backup_cedges %

```