

Ottenere la configurazione in esecuzione di più code utilizzando la chiamata API

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Introduzione

In questo documento viene descritto come utilizzare alcune delle chiamate API disponibili in vManage e come adattare per eseguirle utilizzando uno script.

Problema

Le informazioni che è possibile richiedere da vManage non sono sempre facili da raccogliere se la sovrapposizione contiene centinaia o migliaia di router Cisco Edge.

Esempio:

Il modo più semplice per ottenere la configurazione corrente di un singolo Cisco Edge Router è selezionare Configurazione > Dispositivi > Elenco Wan Edge > fare clic sui puntini di sospensione (...) e Configurazione in esecuzione. Sarà quindi necessario selezionare e copiare tutta la configurazione e salvarla in un altro file in formato .txt. Tuttavia, il problema si verifica quando si desidera ottenere la configurazione di più router Cisco Edge, che rende questa attività impegnativa e dispendiosa in termini di tempo.

The screenshot shows the Catalyst SD-WAN vManage interface. The top navigation bar includes 'Monitor', 'Configuration', 'Analytics', 'Workflows', 'Tools', 'Reports', 'Maintenance', 'Administration', and 'Explore'. The 'Configuration' tab is active, and the 'WAN Edge List' sub-tab is selected. A table titled 'WAN Edge List (7/527)' displays a list of devices. The table has columns for Site Name, Hostname, Tags, Config Locked, Managed By, Device Status, Version, Reachability, Site ID, Mode, Config Group, and Assigned Template. A context menu is open for the first row (SITE_101), showing options like 'Running Configuration', 'Local Configuration', 'Delete WAN Edge', 'Config Unlock', 'Change Device Values', 'Template Log', and 'Device Bring Up'. The 'Running Configuration' option is highlighted with a green box.

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 CBk-Template-V1	In Sync	17.14.01a.0.1470	↑	101	vmanage	-	CBk-Template-V1
SITE_202	cedge2	Add Tag	Yes	Template CBk-Template-V1	In Sync	17.14.01a.0.1470	↑	202	vmanage	-	CBk-Template-V1
SITE_203	cedge3	Add Tag	Yes	Template CBk-Template-V1	In Sync	17.14.01a.0.1470	↑	203	vmanage	-	CBk-Template-V1
SITE_204	cedge4	Add Tag	Yes	Template CBk-Template-V1	In Sync	17.14.01a.0.1470	↑	204	vmanage	-	CBk-Template-V1
SITE_205	cedge5	Add Tag	Yes	Template CBk-Template-V1	In Sync	17.14.01a.0.1470	↑	205	vmanage	-	CBk-Template-V1
SITE_206	cedge6	Add Tag	Yes	Template CBk-Template-V1	In Sync	17.14.01a.0.1470	↑	206	vmanage	-	CBk-Template-V1
SITE_207	cedge7	Add Tag	Yes	Template CBk-Template-V1	In Sync	17.14.01a.0.1470	↑	207	vmanage	-	CBk-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	Add Tag	Yes	Template C8k-Template-V1	In Sync	17.14.01a.0.1470	↑
SITE_202	cedge2	Add Tag	Yes	Template C8k-Template-V1	In Sync	17.14.01a.0.1470	↑
SITE_203	cedge3	Add Tag	Yes	Template C8k-Template-V1	In Sync	17.14.01a.0.1470	↑
SITE_204	cedge4	Add Tag	Yes	Template C8k-Template-V1	In Sync	17.14.01a.0.1470	↑
SITE_205	cedge5	Add Tag	Yes	Template C8k-Template-V1	In Sync	17.14.01a.0.1470	↑
SITE_206	cedge6	Add Tag	Yes	Template C8k-Template-V1	In Sync	17.14.01a.0.1470	↑
SITE_207	cedge7	Add Tag	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$3V6L3V6L2VU2K$ysPhX0dg8RLj9KgmMdmHdShkdaMmhtzGaUpqht8pTfo
vrf definition 10
description Corporate
  
```

[Feedback](#)

[Close](#)

Panoramica sulla chiamata API

Questa procedura è un esempio di come è possibile utilizzare una semplice chiamata API per ottenere tutte le informazioni necessarie.

Passaggio 1.

Accedere a vManage normalmente utilizzando l'URL o l'indirizzo IP.

Catalyst SD-WAN

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

Monitor

All Sites

Overview

Control Components WAN Edges Certificate Status Licensing Reboot

1 Validator 2 Controller 1 Manager 7 Reachable 1 Unreachable 1 Warning 3 Invalid 0 Assigned 8 Unassigned 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

Good Fair Poor

Current Previous 24 hrs

Tunnel Health

Latency (ms) Fair Tunnels

72 Tunnels

Tunnel	Latency (ms)
cedge3.mpls-cedge4.m...	38.60
cedge3.biz-internet-ced...	32.89
cedge2.biz-internet-ced...	32.88
cedge4.biz-internet-ced...	28.02
cedge1.mpls-cedge5.mpls	27.22

Good Fair Poor

Current Pre

Passaggio 2.

Aprire una nuova scheda del browser, quindi copiare e incollare l'URL di vManage e aggiungere il suffisso /apidocs (<https://172.18.121.103:15256/apidocs/>).

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

id Work Sche... Csonc debu Login

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](#)
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Servers
/dataservice

Filter by tag

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

Passaggio 3.

Nella casella di ricerca digitare Monitoraggio - Dettagli dispositivo.

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

Passaggio 4.

Per ottenere la configurazione di un dispositivo, è necessario provare a eseguire la chiamata API /device/config.

GET /device/config

Get device running configuration

Parameters

Try it out

Name	Description
deviceId required array[string] (query)	Device Id list

Passaggio 5.

Immettere il valore System-IP di un router perimetrale Cisco ed eseguire la chiamata API.

GET /device/config

Get device running configuration

Parameters

Cancel

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: A7BBCBCFA4F0D32644D071247F7C087556F8EE0C7BEF9B434C4CF4EE2D708005B9EABC14354244085A305008E4680B3BC010"

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 cedgel
username admin privilege 15 secret 9 $9$3V6L3V6L2VUI2k$ysPnX0dg8RLj9KgMdmfHdSHkdaMniHzGaUpqH6pfTo

```

This option downloads html file with the configuration.

Download

Utilizzo del ricciolo nello script

Un'opzione migliore è quella di usare una chiamata API in uno script per generare i file di

configurazione dei router perimetrali Cisco.

Passaggio 1.

Innanzitutto, nella shell o nella riga di comando CLI, creare una cartella in cui sono memorizzati tutti i file di backup.

```
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 %
```

Passaggio 2.

Creare un file .txt con tutti gli indirizzi IP dei router perimetrali Cisco di cui è richiesto il backup. Elenco indirizzi IP di sistema che è possibile ottenere da vManage ed esportare un file CSV.

È necessario denominare il file System-IPs.txt e salvarlo nella stessa directory creata in precedenza (Backup_cedges).

Catalyst SD-WAN

Monitor

Configuration

Analytics

Workflows

Tools

Reports

Maintenance

Administration

Explore

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

Snooze

Devices

WAN Edge List

Control Components

Unclaimed WAN Edges

WAN Edge List (7/527)

Export

Export Bootstrap Configuration

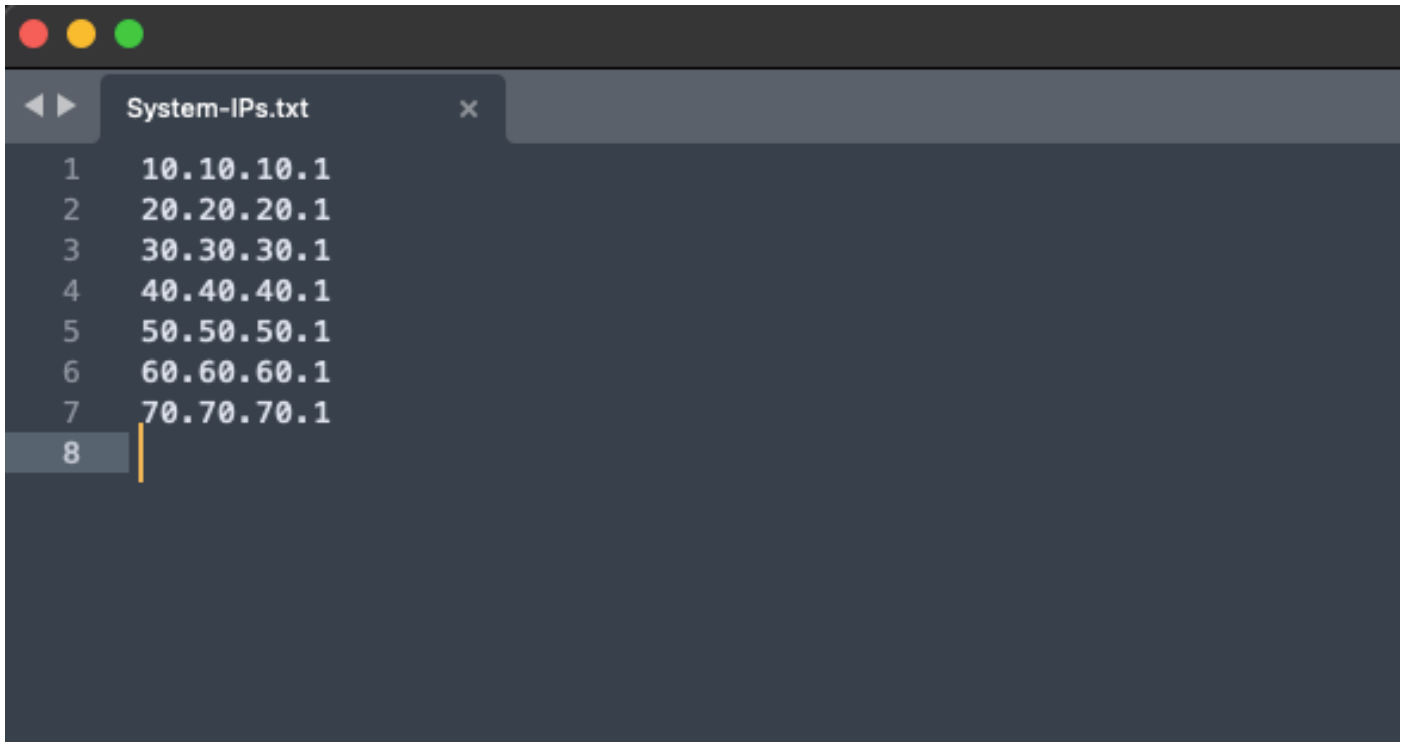
Sync Smart Account

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	Add Tag	Yes	Template CBK-Template-V1	In Sync	1714.01a.0.1470	↑	101	vmanage	
CBK-121CA200-41E6-2217-C121-0EE1B4D0A8AE	SITE_202	cedge2	Add Tag	Yes	Template CBK-Template-V1	In Sync	1714.01a.0.1470	↑	202	vmanage	
CBK-02E80530-267B-DC53-F8B4-24AF3D4D29D4	SITE_203	cedge3	Add Tag	Yes	Template CBK-Template-V1	In Sync	1714.01a.0.1470	↑	203	vmanage	
CBK-EE98CF9C-18E7-4714-A579-2DEB43E2DF86	SITE_204	cedge4	Add Tag	Yes	Template CBK-Template-V1	In Sync	1714.01a.0.1470	↑	204	vmanage	
CBK-62F690FE-0226-F996-485A-EA811A91C2B2	SITE_205	cedge5	Add Tag	Yes	Template CBK-Template-V1	In Sync	1714.01a.0.1470	↑	205	vmanage	
CBK-76AFD19D-9AFB-1348-E556-F1D0B79DA48A	SITE_206	cedge6	Add Tag	Yes	Template CBK-Template-V1	In Sync	1714.01a.0.1470	↑	206	vmanage	
CBK-864D392C-E19D-14F7-8E4C-F138BA65DC0B	SITE_207	cedge7	Add Tag	Yes	Template CBK-Template-V1	In Sync	1714.01a.0.1470	↑	207	vmanage	



Passaggio 3.

Verificare che il file sia stato salvato.

```
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 %
```

Passaggio 4.

Procedere con la creazione dello script. È possibile utilizzare vi o qualsiasi blocco note, è sufficiente fare attenzione a salvarlo con il formato .sh.

```
#!/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"
```

Passaggio 5.

Modificare i privilegi del file in modo che possa essere eseguito.

```
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 %
```

Passaggio 6.

Eseguire lo script utilizzando il comando `./config_backup_script.sh`. Considerare che il completamento di questa operazione richiede del tempo a seconda della quantità di dispositivi.

```
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	1133	0	--:--:--	0:00:06	--:--:--	1761

10.10.10.1

% Total	% Received	% Xferd	Average	Speed	Time	Time	Time	Current
			Dload	Upload	Total	Spent	Left	Speed
100	7218	0	1799	0	--:--:--	0:00:04	--:--:--	1800

20.20.20.1

% Total	% Received	% Xferd	Average	Speed	Time	Time	Time	Current
			Dload	Upload	Total	Spent	Left	Speed
100	7225	0	1978	0	--:--:--	0:00:03	--:--:--	1978

30.30.30.1

% Total	% Received	% Xferd	Average	Speed	Time	Time	Time	Current
			Dload	Upload	Total	Spent	Left	Speed
100	7225	0	1491	0	--:--:--	0:00:04	--:--:--	2031

40.40.40.1

% Total	% Received	% Xferd	Average	Speed	Time	Time	Time	Current
			Dload	Upload	Total	Spent	Left	Speed
100	7225	0	2717	0	--:--:--	0:00:02	--:--:--	2718

50.50.50.1

% Total	% Received	% Xferd	Average	Speed	Time	Time	Time	Current
			Dload	Upload	Total	Spent	Left	Speed
100	7225	0	1610	0	--:--:--	0:00:04	--:--:--	1641

```

60.60.60.1
  % Total  % Received % Xferd  Average Speed   Time    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     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

```

Method Not AllowedCheck files, if they are empty or with message Bad request check user and password
lufrias@LUFRIAS-M-P9Q2 Backup_cedges %

Passaggio 7.

Infine, controllare i file con il comando ls -l.

```

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 %

```

Controllare il file di configurazione.

```

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
```

Se i file sono vuoti o contengono il messaggio di errore "Richiesta non valida", verificare il nome utente e la password di autenticazione.

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

Se nel file viene visualizzato il messaggio "No device found for system IP" (Nessun dispositivo trovato per l'IP del sistema), significa che l'IP del sistema non esiste in vManage. È necessario correggere System-IPs.txt ed eliminare System-IP errato.

```
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 %
```

Informazioni su questa traduzione

Cisco ha tradotto questo documento utilizzando una combinazione di tecnologie automatiche e umane per offrire ai nostri utenti in tutto il mondo contenuti di supporto nella propria lingua. Si noti che anche la migliore traduzione automatica non sarà mai accurata come quella fornita da un traduttore professionista. Cisco Systems, Inc. non si assume alcuna responsabilità per l'accuratezza di queste traduzioni e consiglia di consultare sempre il documento originale in inglese (disponibile al link fornito).