使用SNMP v2和v3的Prime基礎設施進行融合接入(5760/3850/3650)管理配置示例

目錄

簡介

本文說明如何使用簡易網路管理通訊協定(SNMP)v2和v3將聚合存取(5760/3850/3650)新增到Prime基礎架構。

必要條件

需求

思科建議您瞭解以下主題：

- 融合接入(5760/3850/3650)Cisco IOS®版本3.3.x及更高版本或Denali 16.x
- Prime基礎架構版本2.0或更高版本

採用元件

本文件所述內容不限於特定軟體和硬體版本。

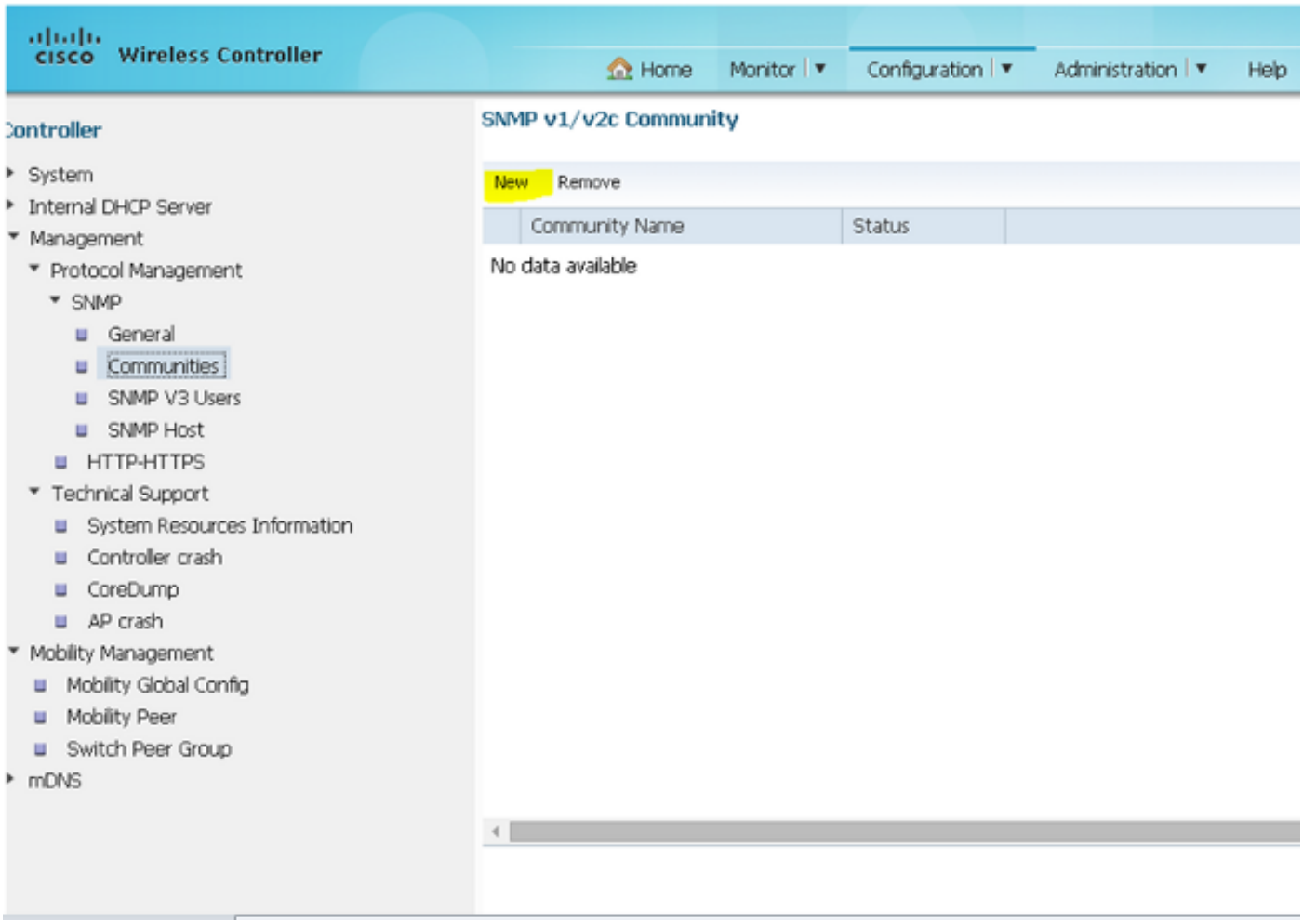
本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設）的組態來啟動。如果您的網路正在作用，請確保您已瞭解任何指令可能造成的影響。

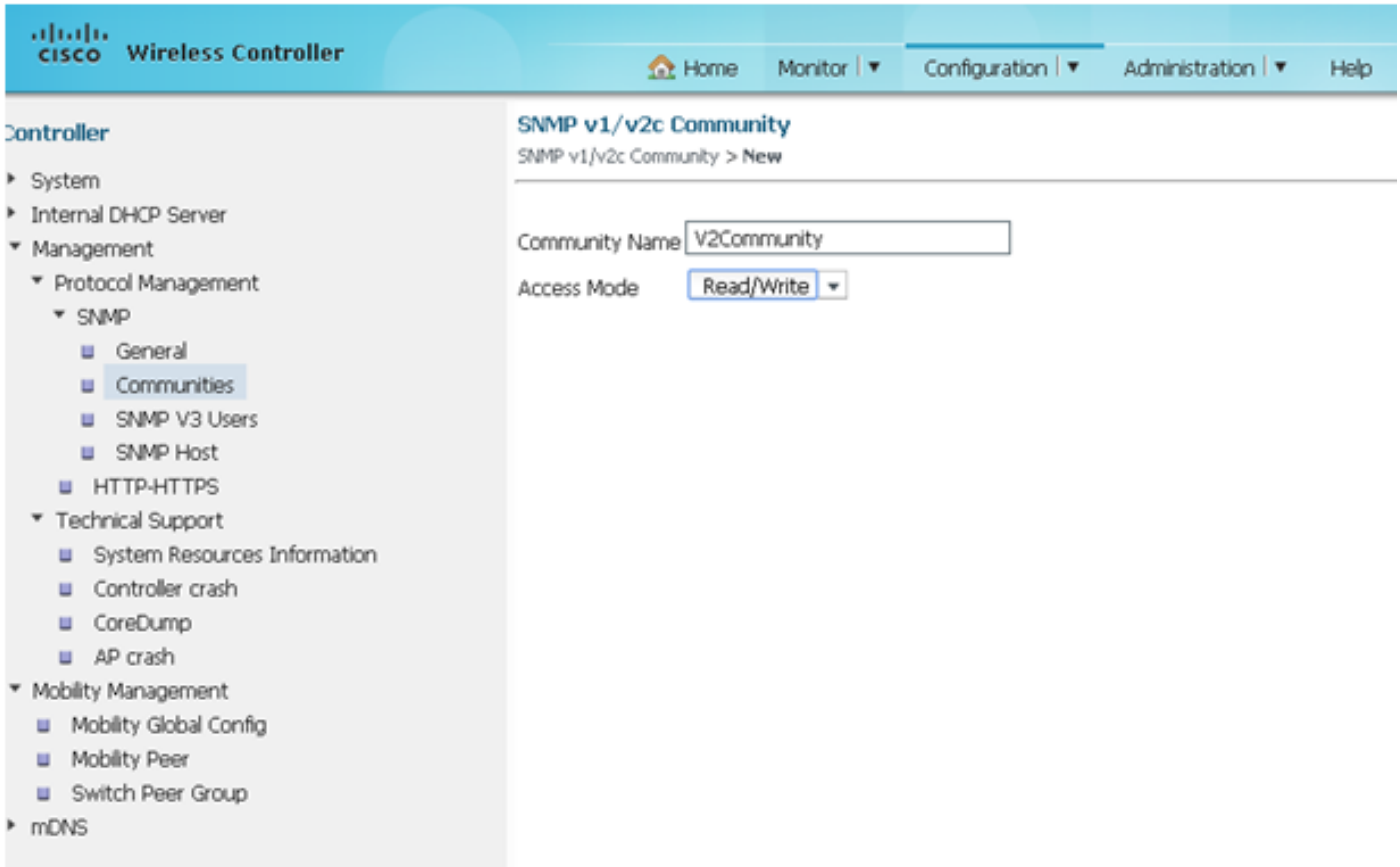
配置（Prime基礎設施2.2及更低版本）

交換器上的SNMP v2組態

GUI

選擇Configuration > Controller > Management > SNMP > Communities > New。


Wireless Controller
Home
Monitor
Configuration
Administration
Help
Controller
System
Internal DHCP Server
Management
Protocol Management
SNMP
General
Communities
SNMP V3 Users
SNMP Host
HTTP-HTTPS
Technical Support
System Resources Information
Controller crash
CoreDump
AP crash
Mobility Management
Mobility Global Config
Mobility Peer
Switch Peer Group
mDNS
SNMP v1/v2c Community
New
Remove
Community Name
Status
No data available


Wireless Controller
Home
Monitor
Configuration
Administration
Help
Controller
System
Internal DHCP Server
Management
Protocol Management
SNMP
General
Communities
SNMP V3 Users
SNMP Host
HTTP-HTTPS
Technical Support
System Resources Information
Controller crash
CoreDump
AP crash
Mobility Management
Mobility Global Config
Mobility Peer
Switch Peer Group
mDNS
SNMP v1/v2c Community
SNMP v1/v2c Community > New
Community Name
V2Community
Access Mode
Read/Write

CLI

輸入以下命令：

```
conf t

snmp-server community V2Community RW
```

交換器上的SNMP v3組態

CLI

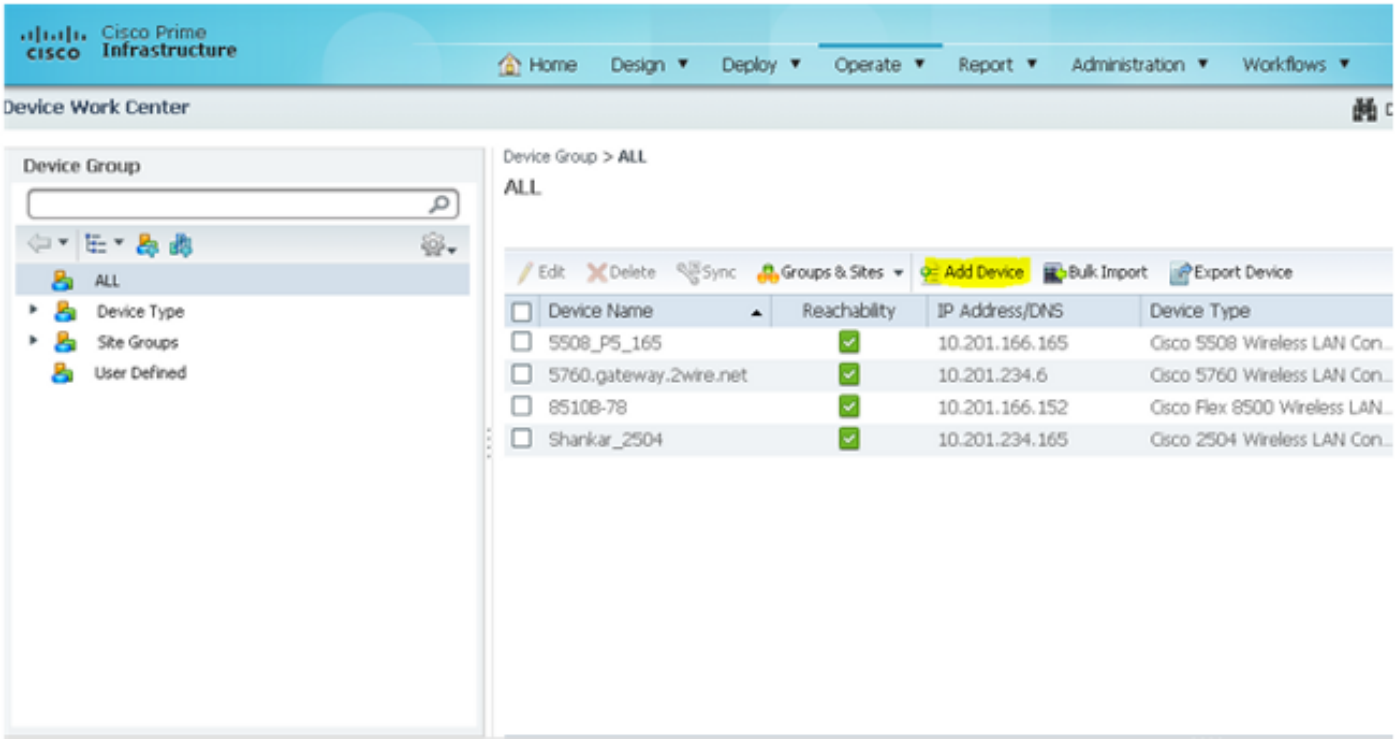
輸入以下命令：

```
conf t

snmp-server group V3Group v3 auth read V3Read write V3Write

snmp-server user V3User V3Group v3 auth sha Password1 priv aes 128 Password1

snmp-server view V3Read iso included

snmp-server view V3Write iso included

snmp-server host 10.201.234.170 version 3 auth V3User

snmp-server enable traps
```

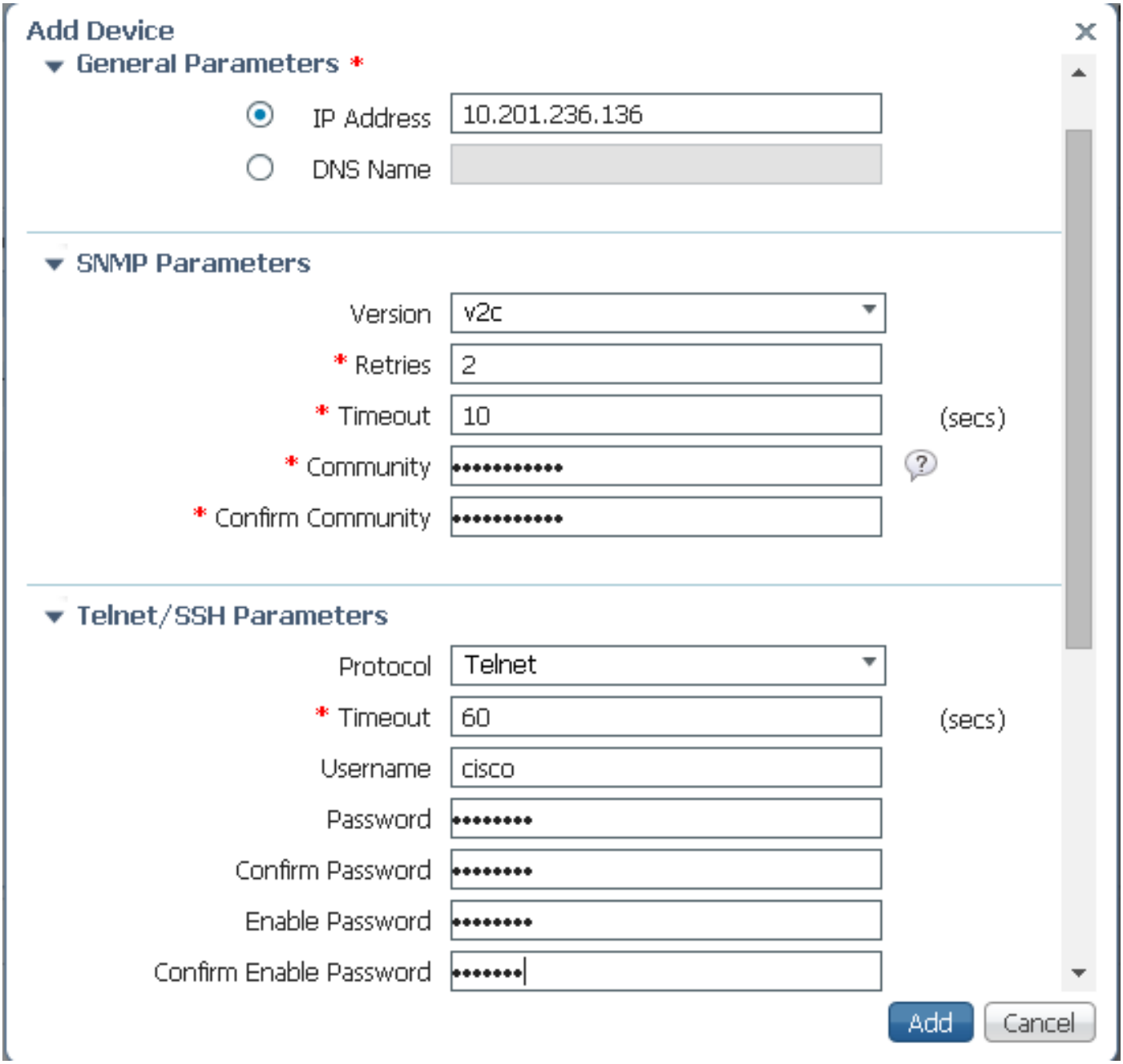
Prime基礎架構

附註：使用「生命週期」檢視。

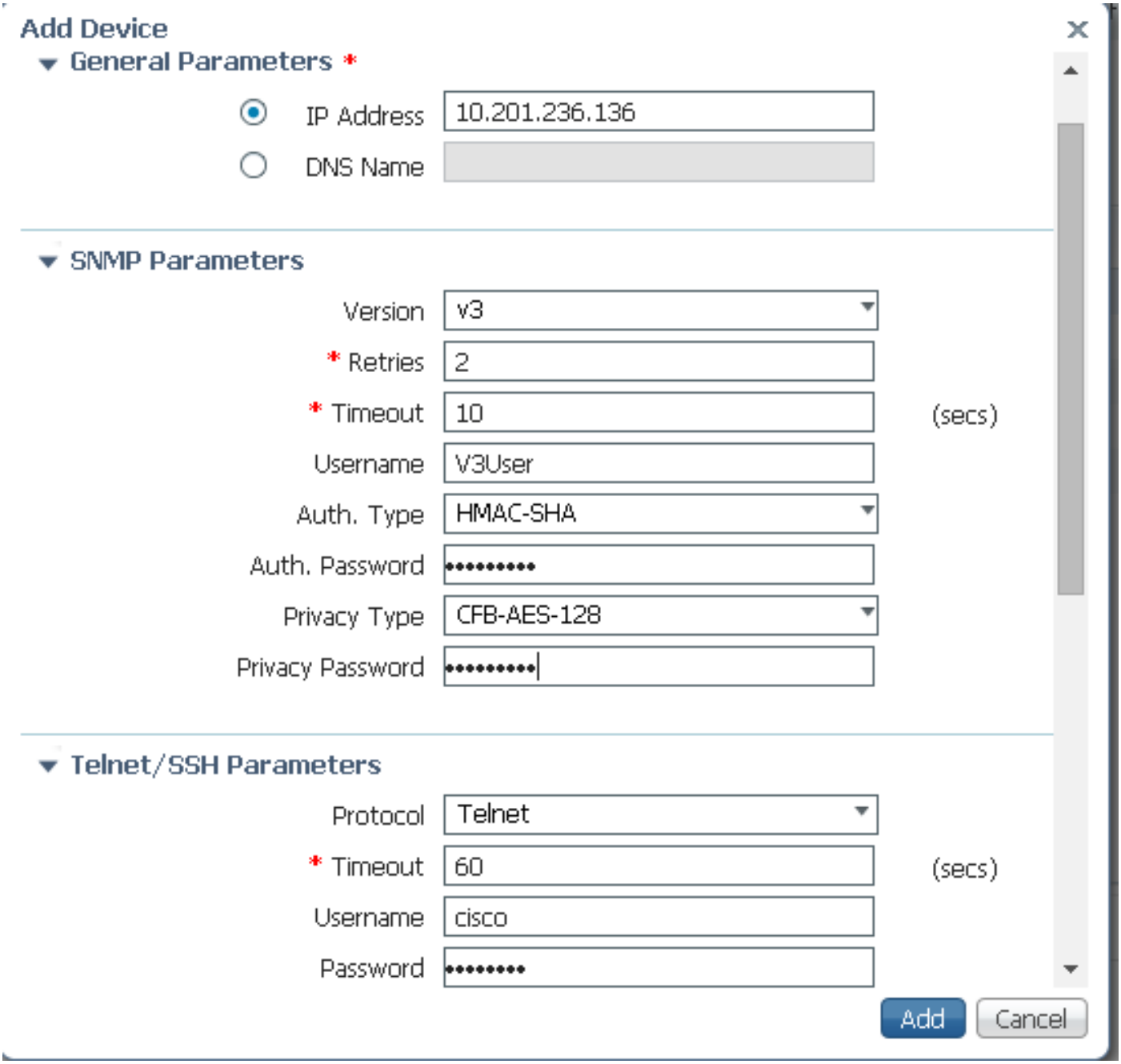
選擇Operate > Device Work Center > Add Device。



SNMP v2


Add Device
General Parameters *
IP Address
10.201.236.136
DNS Name
SNMP Parameters
Version
v2c
* Retries
2
* Timeout
10
(secs)
* Community
* Confirm Community
Telnet/SSH Parameters
Protocol
Telnet
* Timeout
60
(secs)
Username
cisco
Password
Confirm Password
Enable Password
Confirm Enable Password
Add
Cancel

SNMP v3



附註：如果未輸入Telnet/Secure Shell引數，Prime Infrastructure將不會從交換機收集清單。

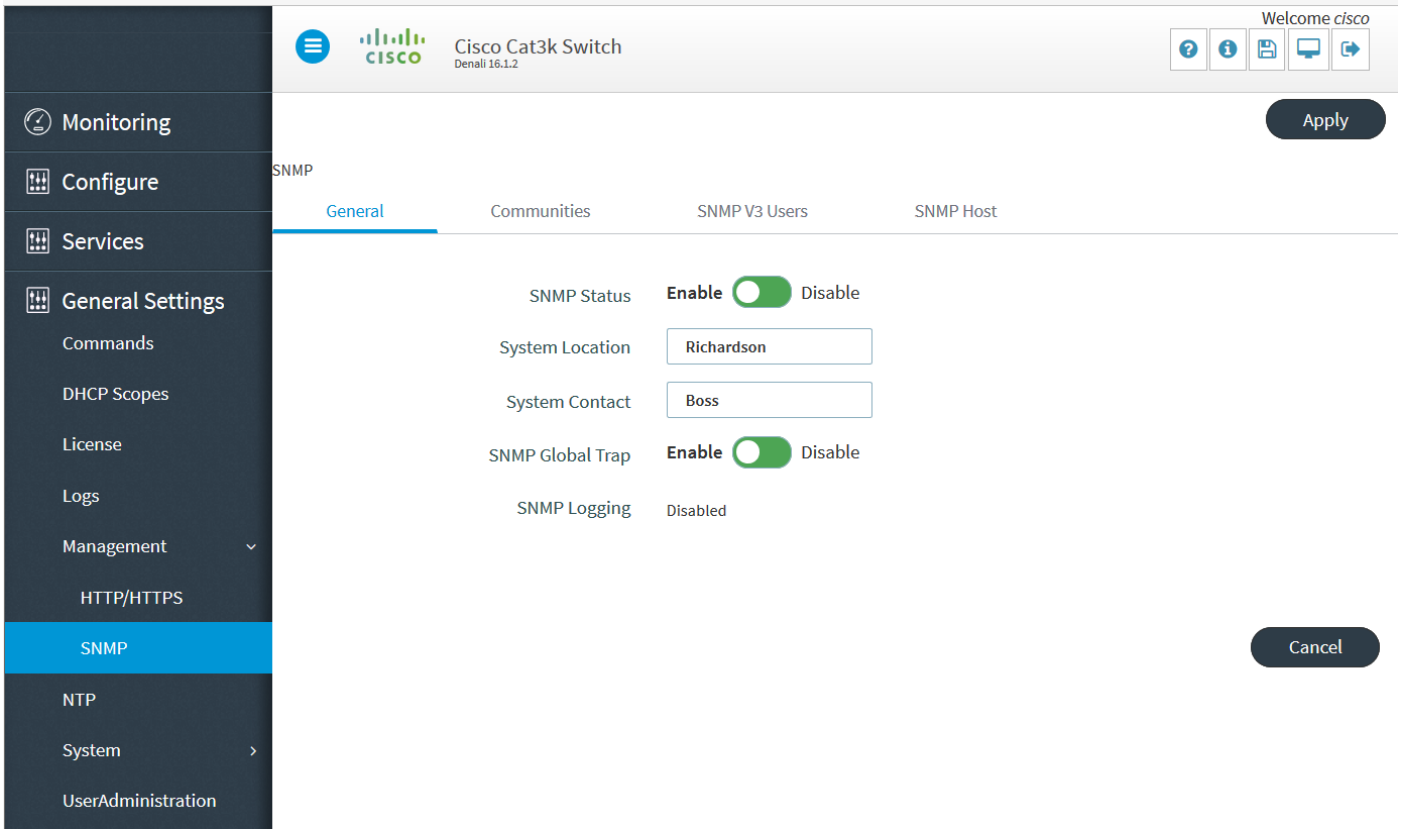
配置（Prime Infrastructure 3.x及更高版本）

交換器上的SNMP組態(Denali 16.x)

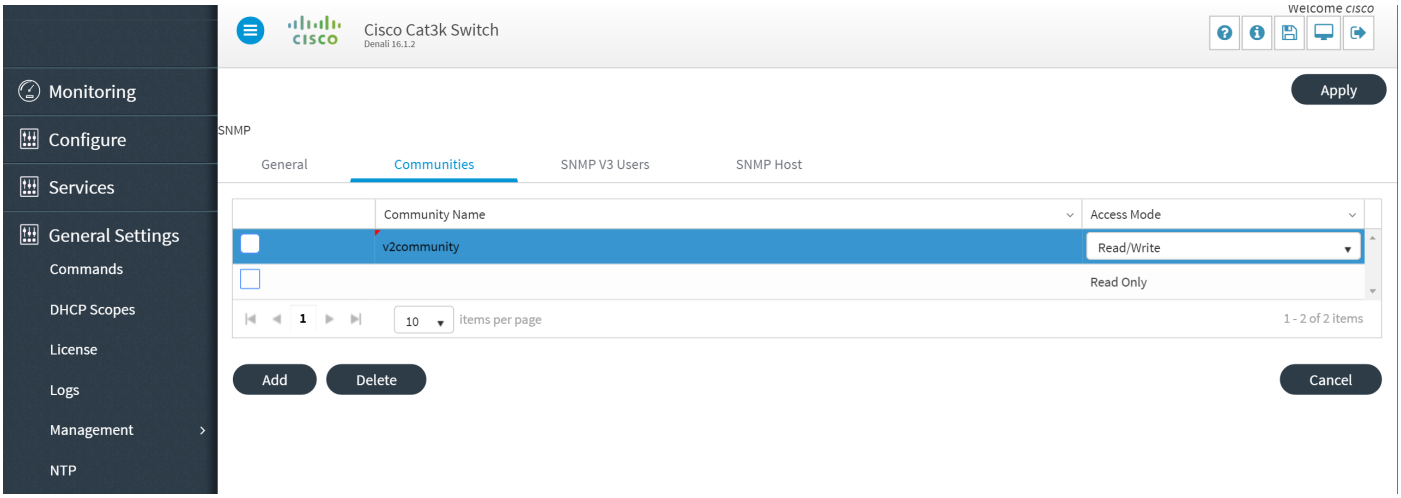
GUI

選擇General Settings > Management > SNMP。

啟用SNMP。



交換器上的GUI SNMP v2組態(Denali 16.x)

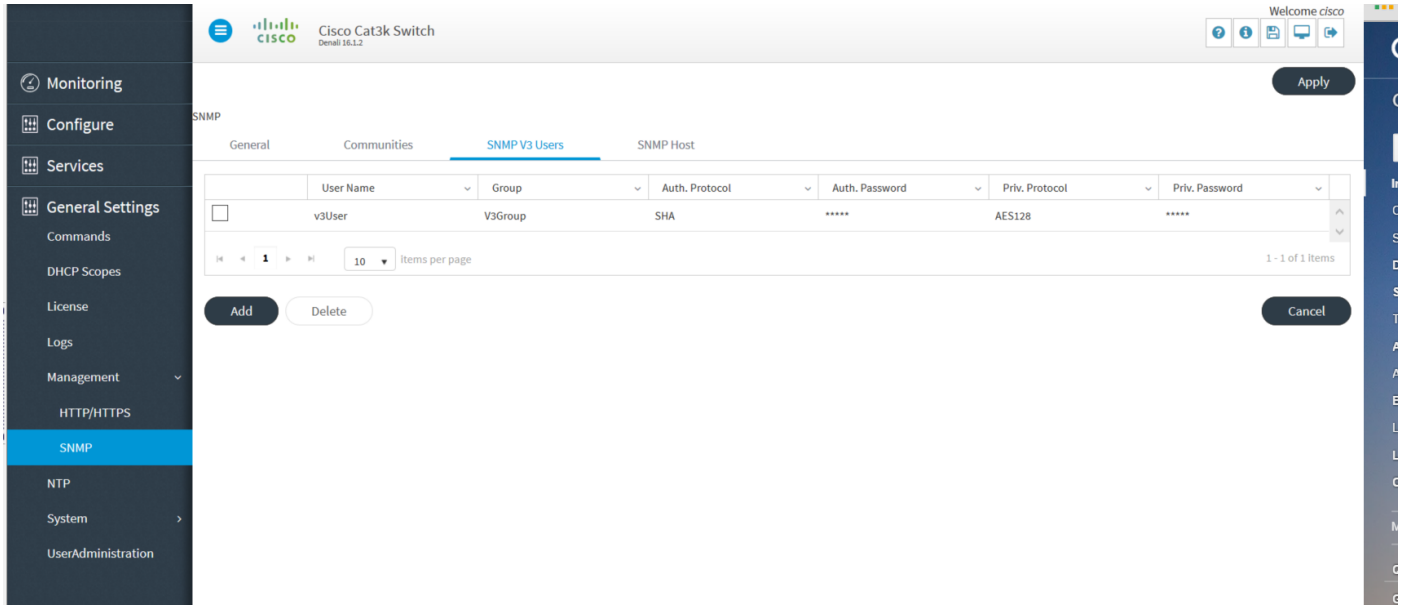


交換機上的CLI SNMP v2配置(Denali 16.x)

輸入以下命令：

```
conf t

snmp-server community V2Community RW
```

交換器上的GUI SNMP v3組態(Denali 16.x)



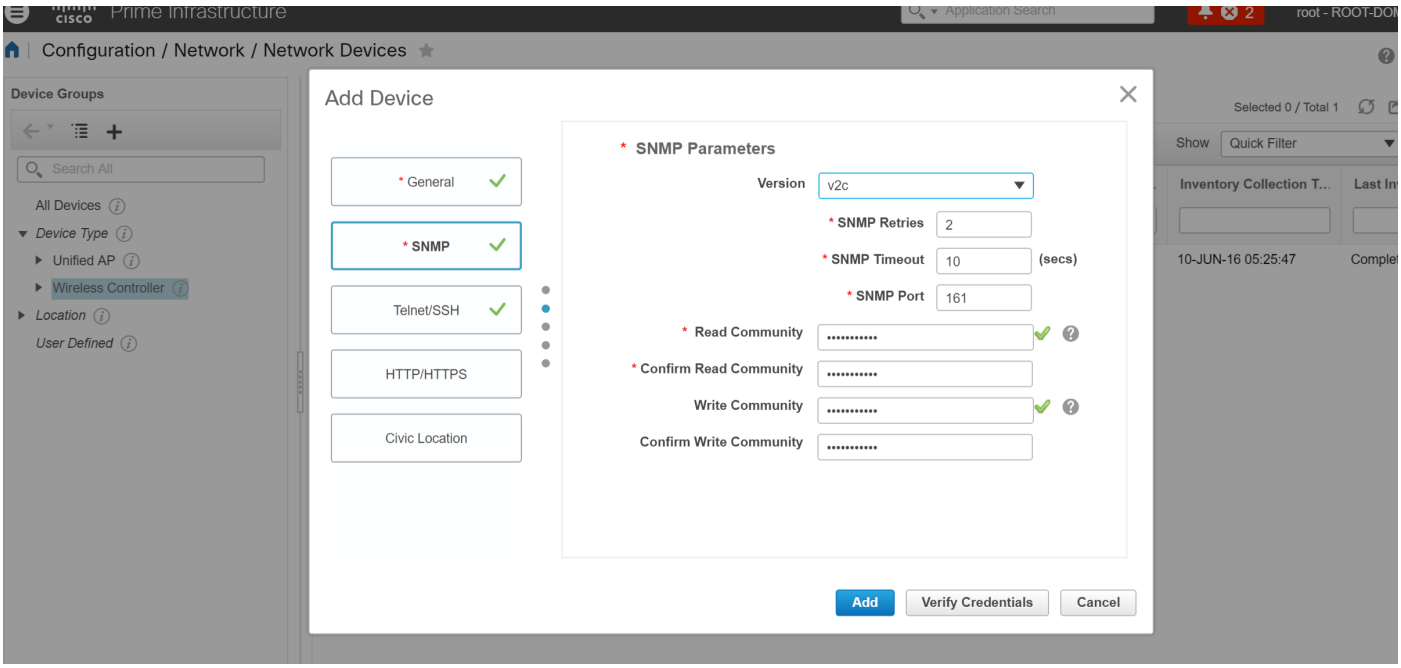
交換機上的CLI SNMP v3配置(Denali 16.x)

輸入以下命令：

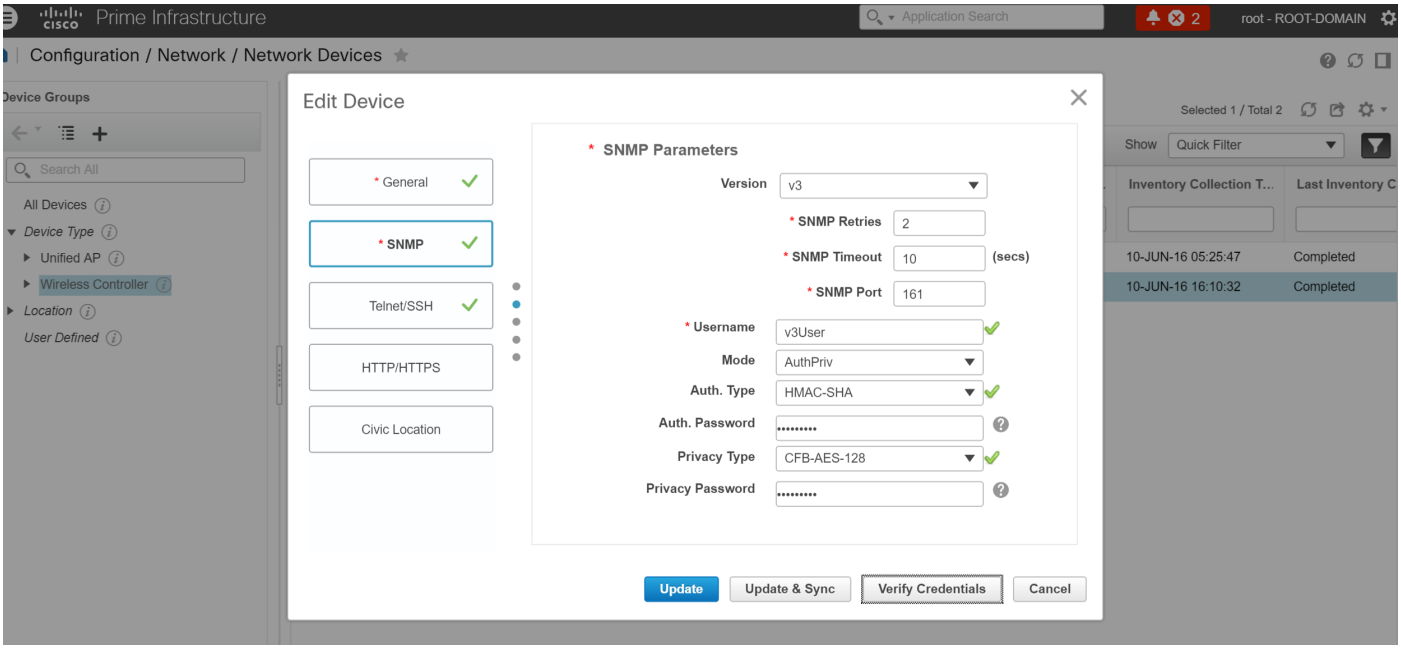
```
conf t

snmp-server user V3user V3Group v3 auth sha Password1 priv aes 128 Password1

snmp-server view V3Read iso included

snmp-server view V3Write iso included

snmp-server host 10.201.236.107 version 3 auth V3user

snmp-server enable traps
```

Prime基礎架構

SNMP v2



SNMP v3



驗證

使用本節內容，確認您的組態是否正常運作。

Cisco CLI Analyzer（僅供已註冊客戶使用）支援某些 show 指令。使用 Cisco CLI Analyzer 檢視 **show 指令輸出的分析。**

交換器上的SNMP v2組態(Cisco IOS-XE)

輸入以下命令：

```
5760-79b#show snmp community

Community name: V2Community
Community Index: V2Community
Community SecurityName: V2Community
storage-type: nonvolatile        active
```

交換器上的SNMP v3組態(Cisco IOS-XE)

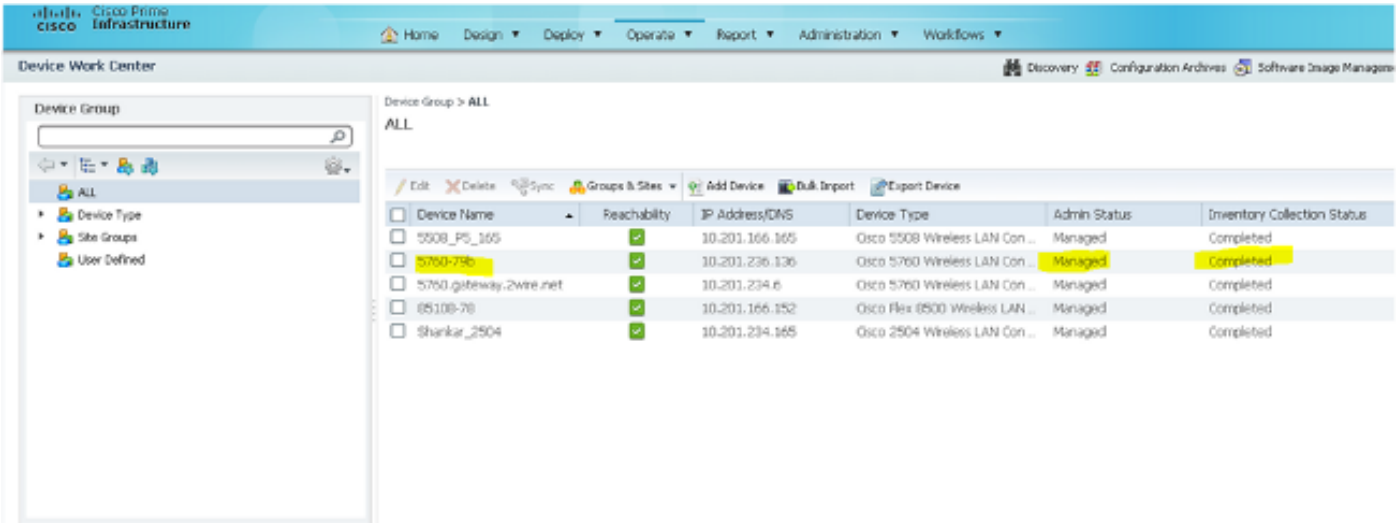
輸入以下命令：

```
5760-79b#show snmp user

User name: V3User
Engine ID: 80000009030068BC0C5A8F80
storage-type: nonvolatile        active
Authentication Protocol: SHA
Privacy Protocol: AES128
Group-name: V3Group

5760-79b#show snmp group
groupname: V3Group                          security model:v3 auth
```

```
contextname: <no context specified>          storage-type: nonvolatile
readview : V3Read                            writeview: V3Write
notifyview: <no notifyview specified>
row status: active
```

附註：對於思科錯誤ID CSCuo52406中涉及的一些已知問題，在融合接入上配置SNMP v3時，CLI優先於GUI。

Prime基礎架構（2.2及更低版本）



交換器上的SNMP v2組態(Denali 16.x)

輸入以下命令：

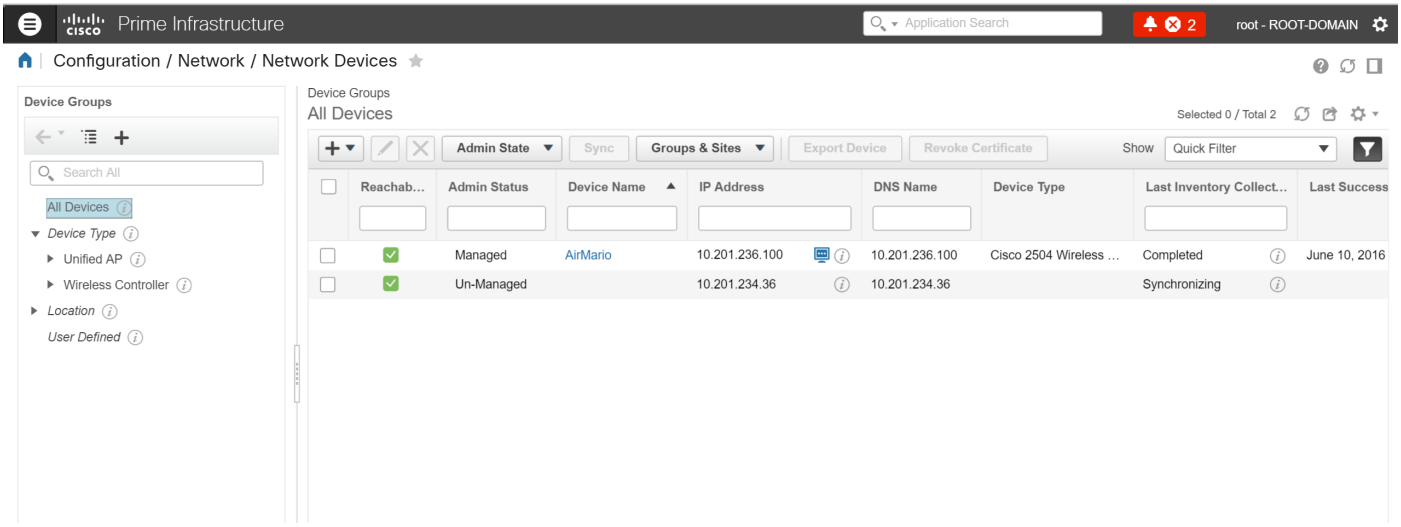
```
polaris-3850#show snmp community

Community name: v2community
Community Index: v2community
Community SecurityName: v2community
storage-type: nonvolatile     active
```

交換器上的SNMP v3組態(Denali 16.x)

輸入以下命令：

```
polaris-3850#show snmp user

User name: v3user
Engine ID: 80000009030068BC0C5A8F80
storage-type: nonvolatile        active
Authentication Protocol: SHA
Privacy Protocol: AES128
Group-name: V3Group

polaris-3850#show snmp group
groupname: V3Group                           security model:v3 auth
contextname: <no context specified>          storage-type: nonvolatile
readview : V3Read                            writeview: V3Write
notifyview: <no notifyview specified>
row status: active
```

Prime基礎架構



疑難排解

本節提供的資訊可用於對組態進行疑難排解。

來自融合接入

show logging命令會顯示從WLC傳送到Prime基礎架構IP位址的活動封包。

輸入以下命令：

```
polaris-3850#debug snmp packets
Polaris-3850#show logging
entPhysicalEntry.7.2042 = Gi2/0/1
*Jun 10 15:58:51.817: SNMP: Packet sent via UDP to 10.201.236.107
*Jun 10 15:58:51.819: SNMP: Packet received via UDP from 10.201.236.107 on Vlan1105
*Jun 10 15:58:51.825: SNMP: Get-bulk request, reqid 945449769, nonrptr 0, maxreps 10
Jun 10 15:58:51.904: SNMP: Packet sent via UDP to 10.201.236.107
*Jun 10 15:58:51.927: SNMP: Packet received via UDP from 10.201.236.107 on Vlan1105
*Jun 10 15:58:51.928: SNMP: Get-bulk request, reqid 945449775, nonrptr 0, maxreps 10
 entPhysicalEntry.7.2062 = NULL TYPE/VALUE
*Jun 10 15:58:51.931: SNMP: Response, reqid 945449775, errstat 0, erridx 0
 entPhysicalEntry.7.2063 = Gi2/0/22
 entPhysicalEntry.7.2064 = Gi2/0/23
 entPhysicalEntry.7.2065 = Gi2/0/24
 entPhysicalEntry.7.2066 = Switch 2 FRU Uplink Module 1
 --More--                          entPhysicalEntry.7.2067 = Gi2/1/1 Container
 entPhysicalEntry.7.2068 = Gi2/1/2 Container
 entPhysicalEntry.7.2069 = Te2/1/3 Container
 entPhysicalEntry.7.2070 = Te2/1/4 Container
 entPhysicalEntry.8.1 = V01

*Jun 10 15:58:51.951: SNMP: Packet sent via UDP to 10.201.236.107
*Jun 10 15:58:51.974: SNMP: Packet received via UDP from 10.201.236.107 on Vlan1105
*Jun 10 15:58:51.975: SNMP: Get-bulk request, reqid 945449777, nonrptr 0, maxreps 10
 ciscoEnvMonTemperatureStatusEntry.3 = NULL TYPE/VALUE
*Jun 10 15:58:51.978: SNMP: Response, reqid 945449777, errstat 0, erridx 0
 ciscoEnvMonTemperatureStatusEntry.3.2008 = 28
 ciscoEnvMonTemperatureStatusEntry.3.2009 = 40
 ciscoEnvMonTemperatureStatusEntry.3.2010 = 44
```

```
ciscoEnvMonTemperatureStatusEntry.6.2008 = 1
--More--                  *Jun 10 15:58:52.001: SNMP: Packet sent via UDP to 10.201.236.107
```

從Prime Infrastructure

裝置之間的SNMPWALK。

輸入以下命令：

```
PrimeInfrastructurejoker/admin# shell
Enter shell access password :
Starting bash shell ...

ade # snmpwalk -v2c -c v2community 10.201.234.36 sysUpTime
DISMAN-EVENT-MIB::sysUpTimeInstance = Timeticks: (238833753) 27 days, 15:25:37.53
```

v2community = snmp community

10.201.234.36 = WLC IP

如果可達性存在，則出現以下結果：

DISMAN-EVENT-MIB::sysUpTimeInstance =時間戳：xx.xxx