

# 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

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## 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<sup>®</sup>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。

**CISCO 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	

**CISCO 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

Access Mode

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
```

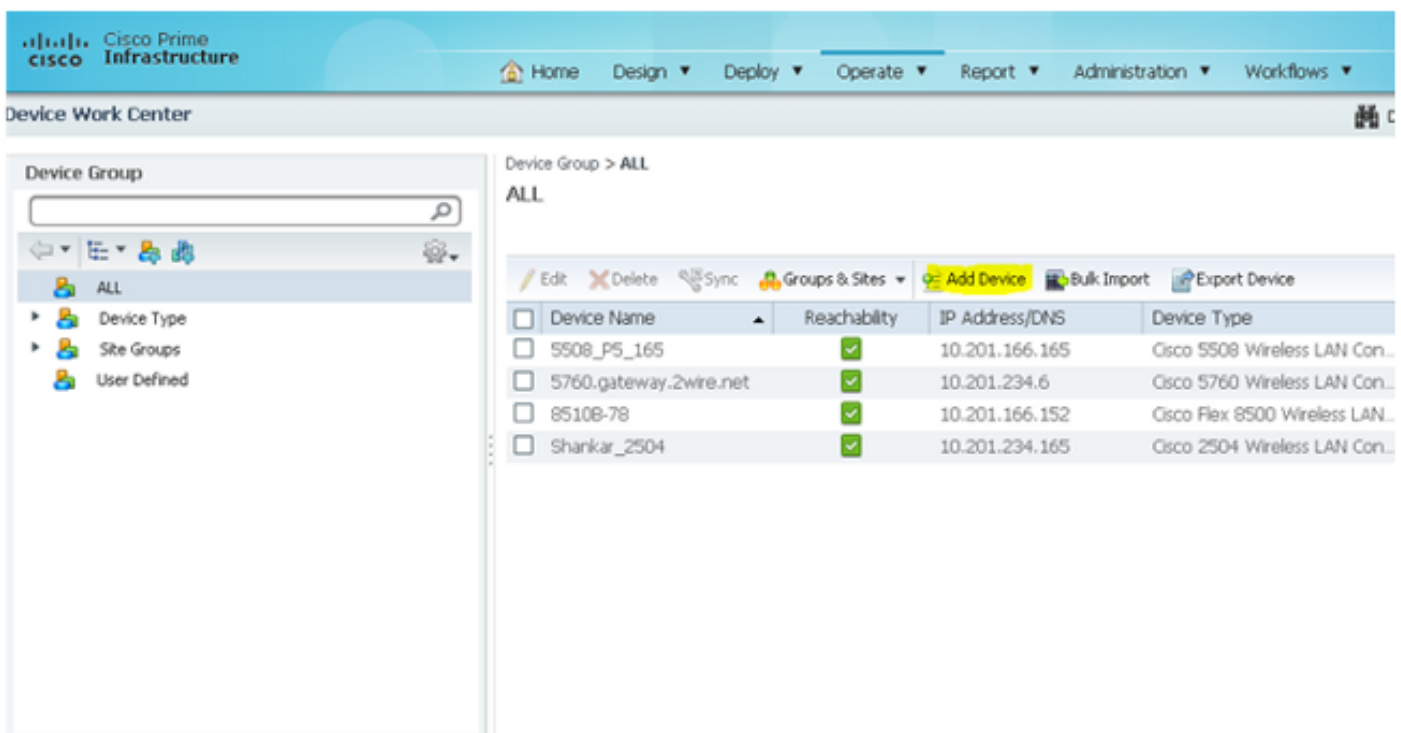
```
snmp-server host 10.201.234.170 version 3 auth V3User
```

```
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。



The screenshot displays the Cisco Prime Infrastructure web interface. The top navigation bar includes Home, Design, Deploy, Operate, Report, Administration, and Workflows. The main content area is titled "Device Work Center" and shows a "Device Group > ALL" view. A table lists several devices with their names, reachability status, IP addresses, and device types.

Device Name	Reachability	IP Address/DNS	Device Type
5508_PS_165	✓	10.201.166.165	Cisco 5508 Wireless LAN Con...
5760.gateway.2wire.net	✓	10.201.234.6	Cisco 5760 Wireless LAN Con...
85108-78	✓	10.201.166.152	Cisco Flex 8500 Wireless LAN...
Shankar_2504	✓	10.201.234.165	Cisco 2504 Wireless LAN Con...

## SNMP v2

## Add Device

### General Parameters \*

IP Address

DNS Name

### SNMP Parameters

Version

\* Retries

\* Timeout  (secs)

\* Community  ?

\* Confirm Community

### Telnet/SSH Parameters

Protocol

\* Timeout  (secs)

Username

Password

Confirm Password

Enable Password

Confirm Enable Password

Add

Cancel

SNMP v3

### Add Device

▼ General Parameters \*

IP Address

DNS Name

---

▼ SNMP Parameters

Version

\* Retries

\* Timeout  (secs)

Username

Auth. Type

Auth. Password

Privacy Type

Privacy Password

---

▼ Telnet/SSH Parameters

Protocol

\* Timeout  (secs)

Username

Password

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。

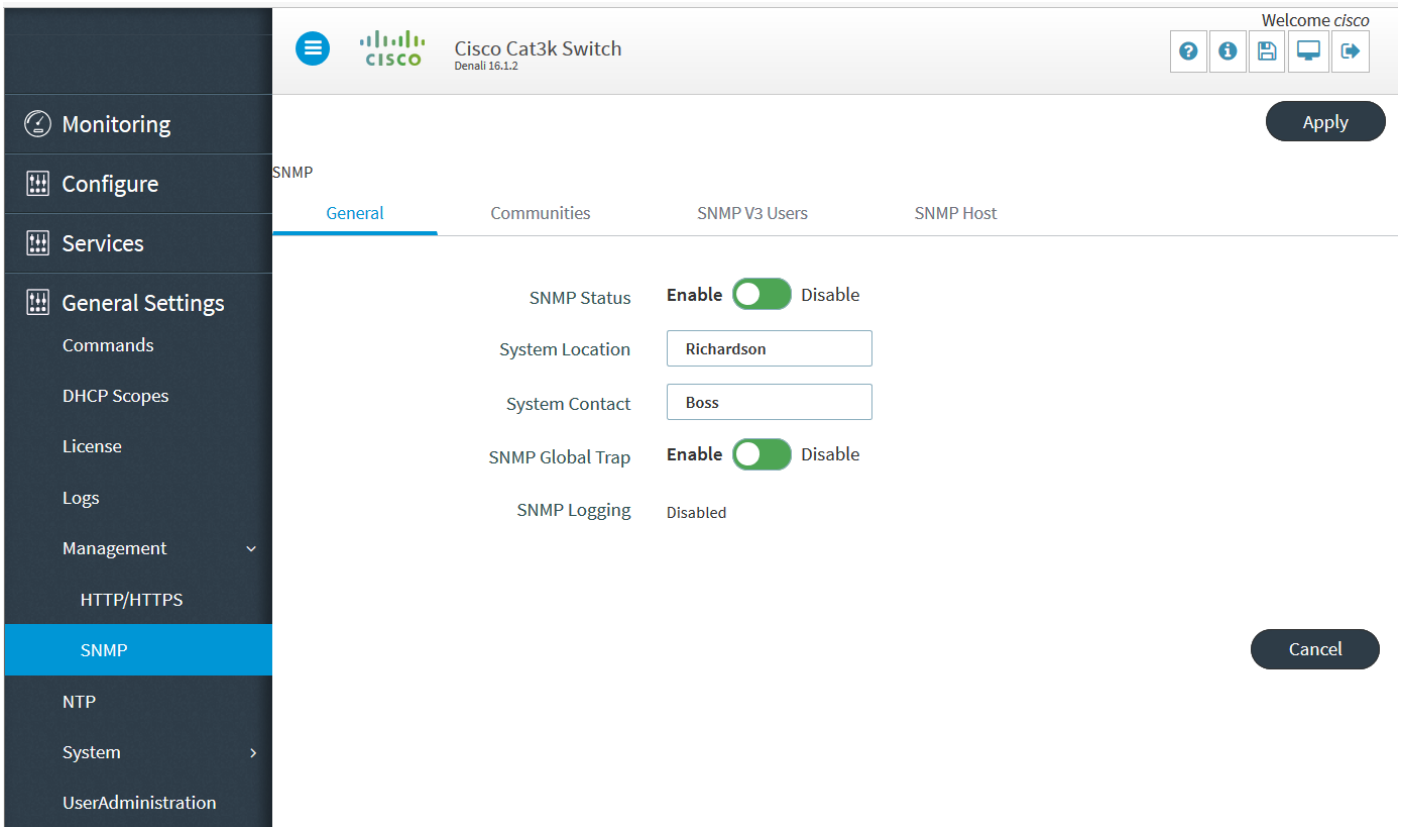
## 配置 ( Prime Infrastructure 3.x及更高版本 )

### 交換器上的SNMP組態(Denali 16.x)

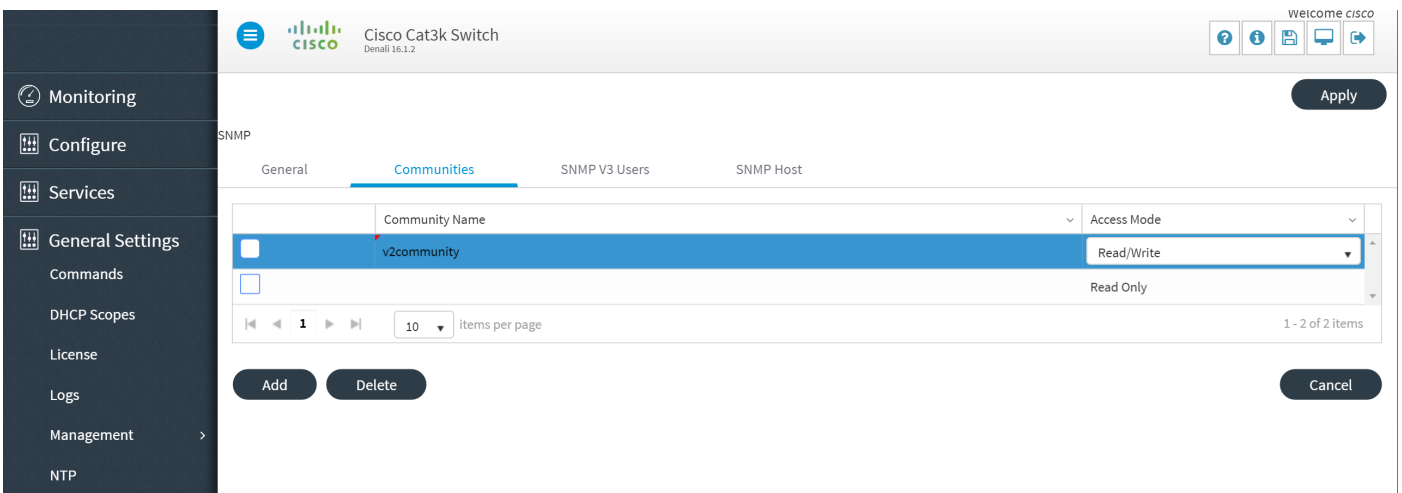
#### GUI

選擇General Settings > Management > SNMP。

啟用SNMP。



## 交換器上的GUI SNMP v2組態(Denali 16.x)



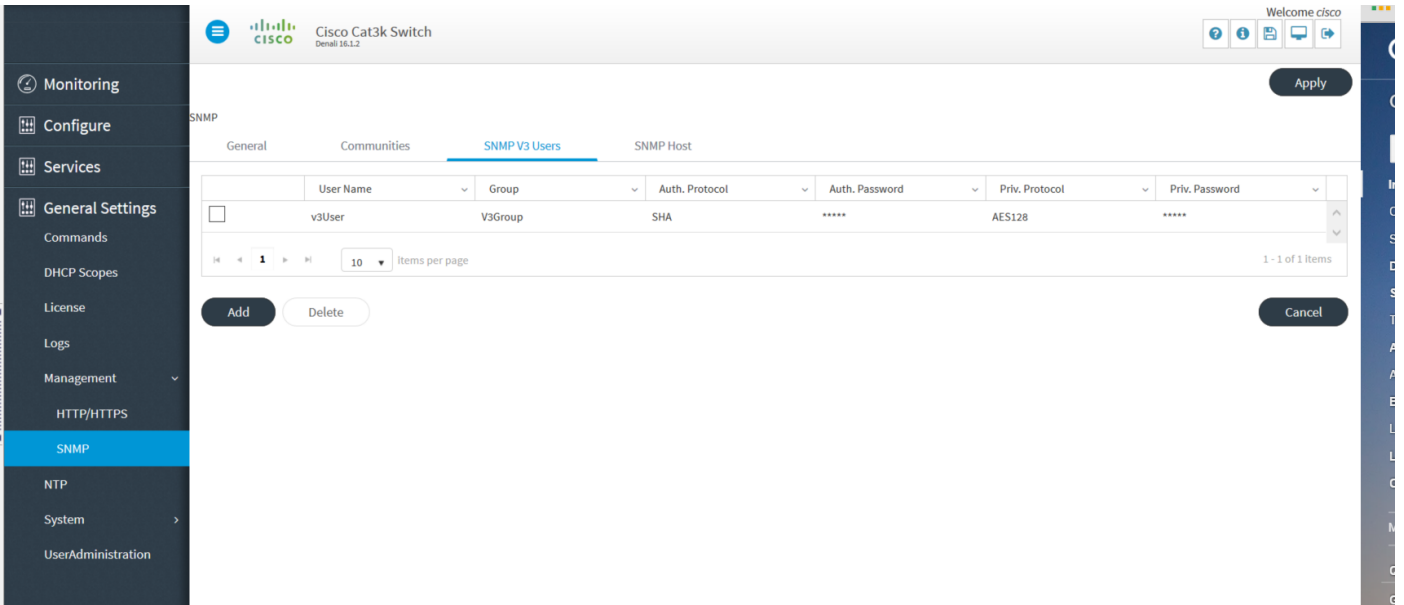
## 交換機上的CLI SNMP v2配置(Denali 16.x)

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
```

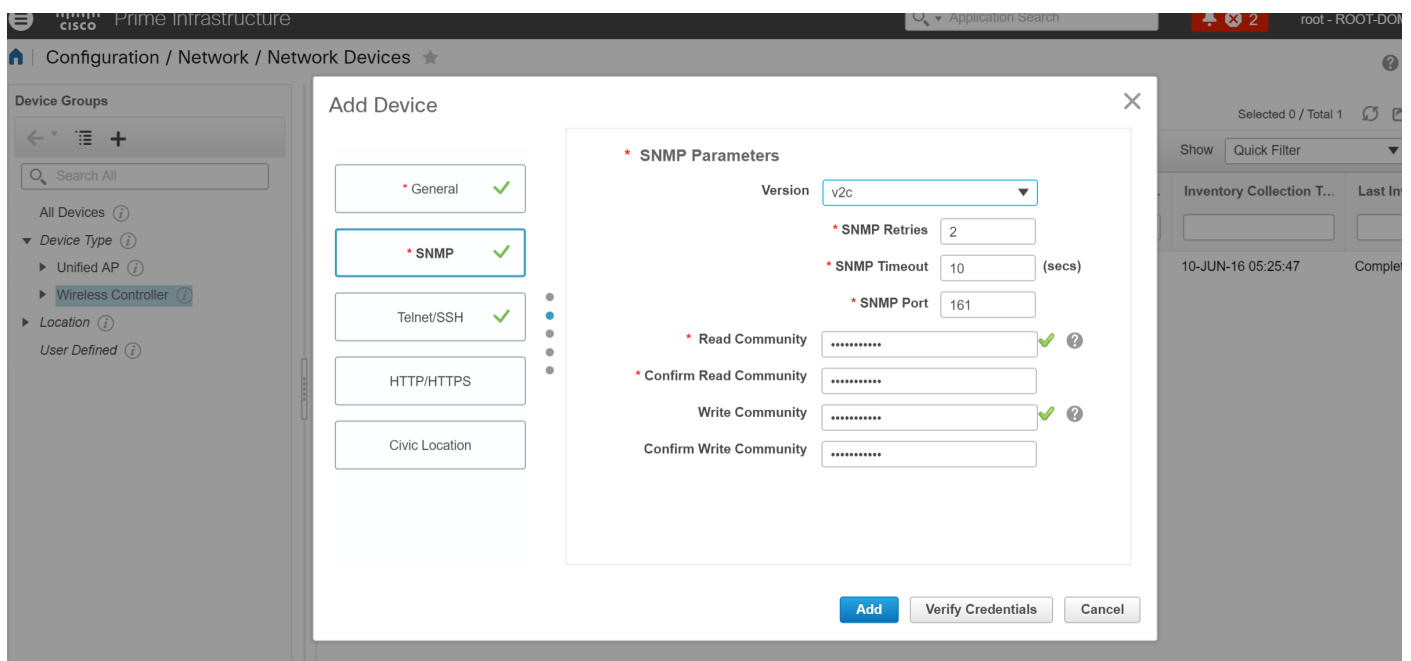
```
snmp-server view V3Write iso included
```

```
snmp-server host 10.201.236.107 version 3 auth V3user
```

```
snmp-server enable traps
```

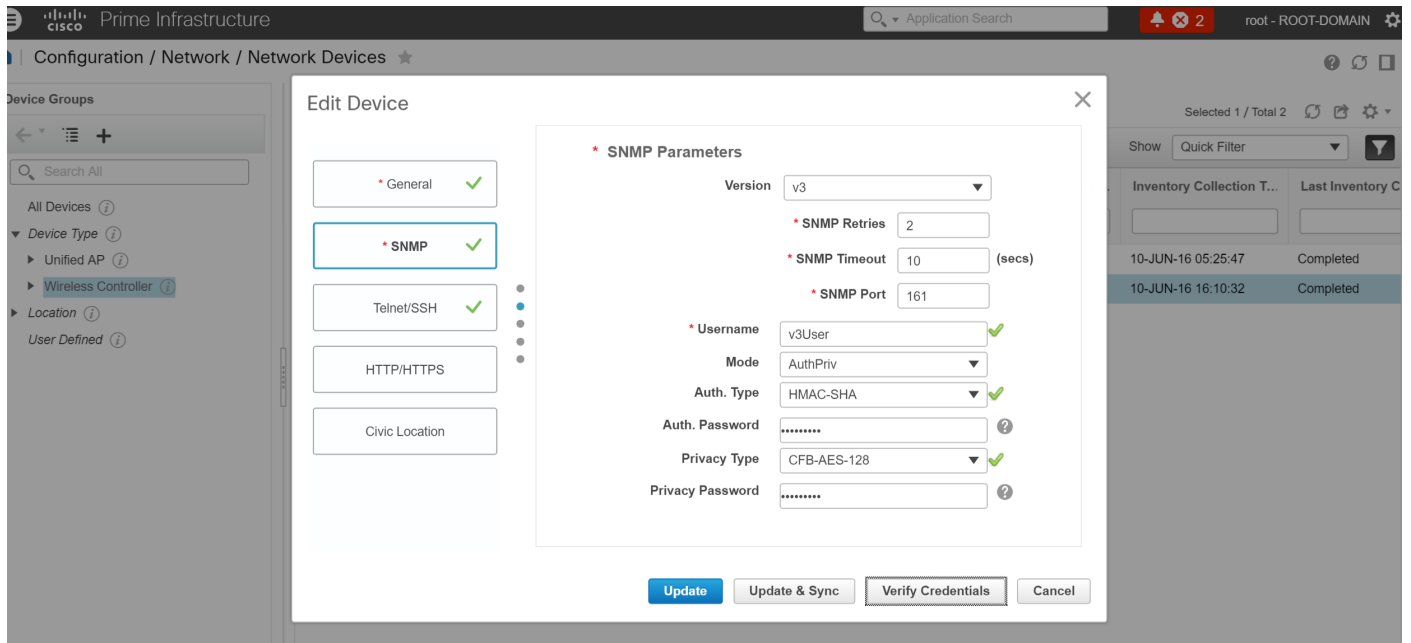
## Prime基礎架構

### 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
```

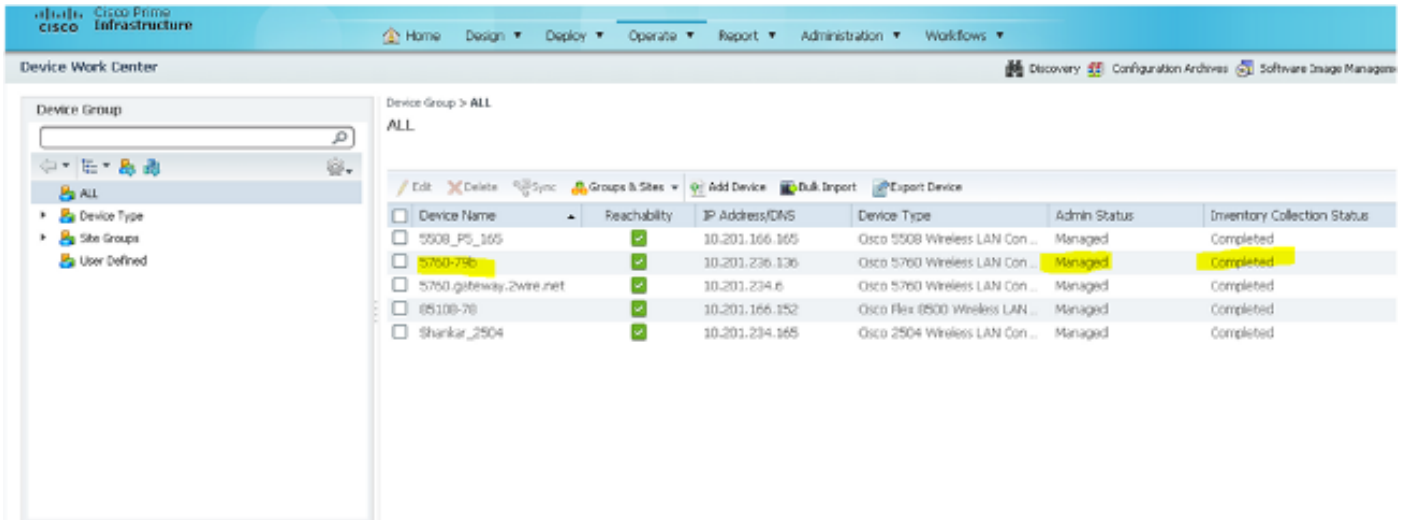
```
5760-79b#show snmp group
```

```
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
contextname: <no context specified>
readview : V3Read
notifyview: <no notifyview specified>
row status: active
security model:v3 auth
storage-type: nonvolatile
writeview: V3Write
```

# Prime基礎架構

Reachability	Admin Status	Device Name	IP Address	DNS Name	Device Type	Last Inventory Collect...	Last Success
<input type="checkbox"/>	Managed	AirMario	10.201.236.100	10.201.236.100	Cisco 2504 Wireless ...	Completed	June 10, 2016
<input type="checkbox"/>	Un-Managed		10.201.234.36	10.201.234.36		Synchronizing	

## 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, nonrprr 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, nonrprr 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, nonrprr 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
```