Exemplo de gerenciamento de acesso convergido (5760/3850/3650) via infraestrutura Prime com configuração SNMP v2 e v3

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Introduction

Este documento descreve como adicionar o acesso convergido (5760/3850/3650) à infraestrutura Prime com SNMP (Simple Network Management Protocol) v2 e v3.

Prerequisites

Requirements

A Cisco recomenda que você tenha conhecimento destes tópicos:

- Acesso convergido (5760/3850/3650) Cisco IOS[®] versão 3.3.x ou posterior ou Denali 16.x
- Prime Infrastructure versão 2.0 ou posterior

Componentes Utilizados

Este documento não se restringe a versões de software e hardware específicas.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Configurar (Prime Infrastructure 2.2 e anterior)

Configuração do SNMP v2 em um switch

GUI

Escolha Configuration > Controller > Management > SNMP > Communities > New.

cisco Wireless Controller	🟠 Home	Monitor 🔻	Configuration 🛛 🔻	Administration 🛛 🔻	Help
Controller	SNMP v1/v2c Communi	ty			
System	New Remove				
 Internal DHCP Server 	Community Name		Status		
 Management 	Community Name		Status		
 Protocol Management 	No data available				
* SNMP					
SNMP V3 Users					
SNMP Host					
HTTP-HTTPS					
 Technical Support 					
 System Resources Information Controller math 					
Controller crash					
AP crash					
 Mobility Management 					
 Mobility Global Config 					
 Mobility Peer 					
Switch Peer Group					
* mDNs					
	4				
	•				
	<u> </u>				
	<u> </u>				
ujuuju cisco Wireless Controller		Monitor ¥	Configuration V	Administration	Hala
սիսիս cisco Wireless Controller	▲ Home	Monitor 🔻	Configuration 🔻	Administration 🔻	Help
Controller	Home SNMP v1/v2c Community > Nev SNMP v1/v2c Community > Nev	Monitor 🔻	Configuration 🔻	Administration 🗐 🔻	Help
Controller System	Home SNMP v1/v2c Community > New	Monitor • ty w	Configuration 🔻	Administration 🔻	Help
Controller System Internal DHCP Server	Home SNMP v1/v2c Community > New Community Name V2Comm	Monitor I 💌	Configuration •	Administration 🔻	Help
Controller System Internal DHCP Server Management Protocol Management	Home SNMP v1/v2c Community SNMP v1/v2c Community > New Community Name V2Comm Assess Marke Read Marke	Monitor 💌	Configuration •	Administration 🔻	Help
System Internal DHCP Server Management SNMP	Home SNMP v1/v2c Community > New Community Name V2Comm Access Mode Read/W	Monitor V ty w hunity	Configuration ▼	Administration 🔻	Help
Controller System Internal DHCP Server Management Protocol Management SNMP General	Home SNMP v1/v2c Community SNMP v1/v2c Community > New Community Name V2Comm Access Mode Read/W	Monitor V ty w hunity Vrite V	Configuration •	Administration 🔻	Help
System Internal DHCP Server Management SNMP General Communities	Home SNMP v1/v2c Community > New Community Name V2Comm Access Mode Read/W	Monitor 💌 ty w hunity Vrite 💌	Configuration ▼	Administration •	Help
Wireless Controller System Internal DHCP Server Management Fortocol Management SNMP General Communities SNMP V3 Users	Home SNMP v1/v2c Community SNMP v1/v2c Community > New Community Name V2Comm Access Mode Read/W	Monitor V ty w nunity Vrite V	Configuration 🔻	Administration 🔻	Help
System Internal DHCP Server Management SNMP General Communities SNMP V3 Users SNMP Host	Home SNMP v1/v2c Community SNMP v1/v2c Community > New Community Name V2Comm Access Mode Read/W	Monitor V ty w nunity Write V	Configuration ▼	Administration •	Help
Controller System Internal DHCP Server Management Vertocol Management SNMP General General SNMP V3 Users SNMP Host HTTP-HTTPS Vertocical Support	Home SNMP v1/v2c Community SNMP v1/v2c Community > New Community Name V2Comm Access Mode Read/W	Monitor V	Configuration •	Administration 🔻	Help
Vireless Controller System Internal DHCP Server Management Protocol Management SNMP General General SNMP V3 Users SNMP Host HTTP-HTTPS Technical Support System Resources Information	Home SNMP v1/v2c Community SNMP v1/v2c Community > New Community Name V2Comm Access Mode Read/W	Monitor V ty w nunity Write V	Configuration v	Administration •	Help
Controller System Internal DHCP Server Management Vertocol Management Vertocol Management SNMP General General Gommunities SNMP V3 Users SNMP Host HTTP-HTTPS Technical Support System Resources Information Controller crash	Home SNMP v1/v2c Community > New Community Name V2Comm Access Mode Read/W	Monitor V	Configuration	Administration •	Help
Controller System Internal DHCP Server Management Protocol Management SNMP General General SNMP V3 Users SNMP V3 Users SNMP Host HTTP-HTTPS Technical Support System Resources Information Corroller crash CoreDump	Home SNMP v1/v2c Community SNMP v1/v2c Community > New Community Name V2Comm Access Mode Read/W	Monitor V	Configuration •	Administration •	Help
System System Internal DHCP Server Management Protocol Management SNMP General General Communities SNMP V3 Users SNMP Host HTTP-HTTPS Technical Support System Resources Information Controller crash CoreDump AP crash	Home SNMP v1/v2c Community > New Community Name V2Comm Access Mode Read/W	Monitor V	Configuration	Administration •	Help
Wireless Controller System Internal DHCP Server Management Protocol Management SNMP General General SNMP V3 Users SNMP V3 Users SNMP Host SNMP Host HTTP-HTTPS Technical Support System Resources Information Controller crash CoreDump AP crash Mobility Management	Home SNMP v1/v2c Community SNMP v1/v2c Community > New Community Name V2Comm Access Mode Read/W	Monitor V	Configuration 🔻	Administration	Help
System Internal DHCP Server Management Protocol Management SNMP General General General SNMP V3 Users SNMP Host HTTP-HTTPS Technical Support System Resources Information Controller crash CoreDump AP crash Mobility Management Mobility Global Config Mobility Global Config	Home SNMP v1/v2c Community SNMP v1/v2c Community > New Community Name V2Comm Access Mode Read/W	Monitor V	Configuration	Administration 🗐	Help
Controller System Internal DHCP Server Management Management SNMP General General Gommunities SNMP V3 Users SNMP Host SNMP Host HTTP-HTTPS Technical Support System Resources Information Controller crash CoreDump AP crash Mobility Management Mobility Global Config Mobility Peer Switch Peer Group	Home SNMP v1/v2c Community SNMP v1/v2c Community > New Community Name V2Comm Access Mode Read/W	Monitor V	Configuration	Administration	Help

Insira os seguintes comandos:

conf t

snmp-server community V2Community RW

Configuração SNMP v3 em um switch

CLI

Insira os seguintes comandos:

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 Infrastructure

Note: Use a visualização do ciclo de vida.

Escolha Operate > Device Work Center > Add Device.

cisco Prime cisco Infrastructure	☆ Home Design ▼ Deploy	 Operate 	Report 🔻 Administ	ration 🔻 Workflows 🔻
Device Work Center				此。
Device Group	Device Group > ALL ALL			
	/Edit XDelete Sync 🔒	Groups & Sites 👻	🔁 Add Device 🛛 🔛 Bulk Impo	rt 📝 Export Device
Ba Device Type	Device Name	Reachability	IP Address/DNS	Device Type
Ske Groups	5508_P5_165	~	10.201.166.165	Cisco 5508 Wireless LAN Con
User Defined	5760.gateway.2wire.net	~	10.201.234.6	Cisco 5760 Wireless LAN Con.
	85108-78	S	10.201.166.152	Cisco Flex 8500 Wireless LAN
	Shankar_2504	S	10.201.234.165	Cisco 2504 Wireless LAN Con

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

SNMP v3

Add Device			×			
deneral Parameters						
 IP Address 	10.201.236.136					
O DNS Name						
 SNMP Parameters 						
Version	v3 •]				
* Retries	2					
* Timeout	10	(secs)				
Username	V3User					
Auth. Type	HMAC-SHA]				
Auth. Password	•••••					
Privacy Type	CFB-AES-128]				
Privacy Password	••••••					
▼ Telnet/SSH Parameters						
Protocol	Telnet •]				
* Timeout	60	(secs)				
Username	cisco					
Password	•••••		-			
		Add Cance				

Note: Se os parâmetros Telnet/Secure Shell não forem inseridos, o Prime Infrastructure não coletará inventário do switch.

Configurar (Prime Infrastructure 3.x e posterior)

Configuração SNMP em um switch (Denali 16.x)

GUI

Escolha General Settings > Management > SNMP.

Habilite o SNMP.

		Cisco Cat3k Switch Denali 16.1.2			Welcome cisco
④ Monitoring					Apply
🔛 Configure	SNMP				
🔛 Services	General	Communities	SNMP V3 Users	SNMP Host	
🔛 General Settings		SNMP Status	Enable Disable		
Commands		System Location	Richardson		
DHCP Scopes		System Contact	Boss		
License		SNMP Global Trap	Enable Oisable		
Logs		SNMP Logging	Disabled		
Management ~					
HTTP/HTTPS					
SNMP					Cancel
NTP					
System >					
UserAdministration					

Configuração de SNMP v2 GUI em um switch (Denali 16.x)

		Cisco Cat3k Switch					wet	come cisco]
Monitoring								Apply	
🔛 Configure	SNMP								
🔛 Services	General	Communities	SNMP V3 Users	SNMP Host					
HH General Settings		Community Name			~	Access Mode		~	
in General Settings		v2community				Read/Write		•	
Commands						Read Only			-
DHCP Scopes		10 🔹 items per page					1-2	of 2 items	
License									
Logs	Add De	elete						Cancel	
Management >									
NTP									

CLI SNMP v2 Configuration on a Switch (Denali 16.x)

Insira os seguintes comandos:

conf t

snmp-server community V2Community RW

Configuração de SNMP v3 GUI em um switch (Denali 16.x)

		Cisco Cat3k Switch					0 0 E	Velcome <i>cisco</i>
Monitoring Monitoring							(Apply
🔛 Configure	SNMP							
🔛 Services	General	Communities	SNMP V3 Users S	NMP Host				
🔛 General Settings		User Name v3User	V3Group V	Auth. Protocol ~	Auth. Password ~	Priv. Protocol ~ AES128	Priv. Password	~
Commands	H 4 1 H	H 10 - items per page	P				1-	- 1 of 1 items
DHCP Scopes								
License	Add	Delete						Cancel
Logs Management ~								
HTTP/HTTPS								
SNMP								
NTP								
System >								
UserAdministration								

CLI SNMP v3 Configuration on a Switch (Denali 16.x)

Insira os seguintes comandos:

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 Infrastructure

SNMP v2

Cisco Prime Infrastructure					 Application Set 	earch		root - RC	DOT-DON
↑ Configuration / Network / Network	ork Devices 🔺								0
Configuration / Network / Network Device Groups C. Search All All Devices \hat{r} Device Type \hat{r} Unified AP \hat{r} Unified AP \hat{r} User Defined \hat{r}	Add Device		 SNMP Parameters Version Read Community Confirm Read Community Write Community Confirm Write Community 	v2c ▼ • SNMP Retries 2 • SNMP Timeout 10 • SNMP Port 161 • SNMP Nort 161 • SNMP Nort 161		×] (secs)] ✓ @		Selected 0 / Total 1 Show Quick Filter Inventory Collection T 10-JUN-16 05:25:47	€ Complet
]		Add	erify Credential	s Can	icel		

SNMP v3

Prime Infrastructure				Q , 1	 Application S 	earch		🐥 😣 2 root - R(OOT-DOMAIN 🋱
Configuration / Network / Netw	vork Devices ★								0 0 D
Device Groups	Edit Device						\times	Selected 1 / Total 2	ति <i>वे रं</i> र
< ĭ ≣ +			* SNMP Parameters					Show Quick Filter	T T
O Search All All Devices (i)	* General 🗸]	Version	V3	•			. Inventory Collection T	Last Inventory C
 ✓ Device Type (i) ▶ Unified AP (i) 	* SNMP 🗸]		* SNMP Retries * SNMP Timeout	2	(secs)		10-JUN-16 05:25:47	Completed
Wireless Controller Location Unse Defined	Teinet/SSH 🗸	•	* Username	* SNMP Port	161]		10-JUN-16 16:10:32	Completed
User Defined (f)	HTTP/HTTPS	•	Mode Auth. Type	AuthPriv	•]]]⁄			
, i i i i i i i i i i i i i i i i i i i	Civic Location		Auth. Password	•••••••] @]			
			Privacy Password	••••••	•] 0			
			Update	ate & Sync Ve	erify Credential	s Car	Icel		

Verificar

Use esta seção para confirmar se a sua configuração funciona corretamente.

O Cisco CLI Analyzer (somente clientes registrados) aceita alguns comandos show. Use o Cisco CLI Analyzer para visualizar uma análise da saída do comando show.

Configuração SNMP v2 em um switch (Cisco IOS-XE)

Digite este comando:

5760-79b#show snmp community

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

Configuração SNMP v3 em um switch (Cisco IOS-XE)

Insira os seguintes comandos:

```
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
```

contextname: <no context specified>
readview : V3Read
notifyview: <no notifyview specified>
row status: active

Note: A CLI é preferida à GUI para a configuração SNMP v3 no acesso convergido para alguns problemas conhecidos que são abordados na ID de bug da Cisco <u>CSCuo52406</u>.

Prime Infrastructure (2.2 e anterior)

🛕 Home Design 💌 I	Deploy * Operate * Report * A	Idministration • Workflows •	
		🎽 Discovery 🕂 Confi	guration Archives 🧕 Software Image Managen
Device Group > ALL			
/Edt MDalata Silica	n: A Groups & Stes v Of Add Davice	A Inport Capat Device	
Device Name	Reachability IP Address/DNS	Device Type Admin Status	Inventory Collection Status
5760-796	10.201.236.136	Osco 5760 Wreless LAN Con Managed	Completed
5760.gateway.2wre.r	net 2 10.201.234.6 10.201.166.152	Osco 5760 Wireless LAN Con Managed Osco Flex 6500 Wireless LAN Managed	Completed Completed
Shankar_2504	10.201.234.165	Osco 2504 Wheless LAN Con Managed	Completed
	Home Design Device Group > ALL ALL / Edt * Device Name Store Name Sto	▲ Home Design ▼ Depicy ▼ Operate ▼ Report ▼ A ■	Home Design * Deploy * Operate * Report * Administration * Workflows * Device Group > ALL ALL Device Name * Reachability IP Address(DNS Device Type Administration & Managed Stole PS_165 Stole 2002;95:105 Device Name * Reachability IP Address(DNS Device Type Administration & Managed Stole pseudo administration & Stole PS_105 Stole pseudo administration & Octo Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administration & Device Stole Wireless LAN Con Managed Stole pseudo administrating stole pseudo administration of the Device

Configuração SNMP v2 em um switch (Denali 16.x)

Digite este comando:

polaris-3850#show snmp community

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

Configuração SNMP v3 em um switch (Denali 16.x)

Insira os seguintes comandos:

```
polaris-3850#show snmp user
```

User name: v3user Engine ID: 8000009030068BC0C5A8F80 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 Infrastructure

E viluelu Prime Infrastructure					O ₄ ▼ Application Se	earch	🐥 Ӿ 2 root - RC	ot-domain 🌣
Configuration / Network / Network	workDevices 🔺							000
Device Groups	Device Groups All Devices						Selected 0 / Total 2	0 c ¢ •
<" ≣ +	+• / ×	Admin State 🔻	Sync Group	s & Sites 🔻 Expo	ort Device Revoke C	ertificate St	Quick Filter	• 7
 Q Search All All Devices ĵ ▼ Device Type (i) 	Reachab	Admin Status	Device Name	IP Address	DNS Name	Device Type	Last Inventory Collect.	. Last Success
► Unified AP (j)		Managed	AirMario	10.201.236.100 📃	<i>i</i> 10.201.236.100	Cisco 2504 Wireless	Completed (i)	June 10, 2016
► Wireless Controller (i)		Un-Managed		10.201.234.36	(<i>i</i>) 10.201.234.36		Synchronizing	1
► Location ① User Defined ⑦								

Troubleshoot

Esta seção fornece informações que podem ser usadas para o troubleshooting da sua configuração.

Do acesso convergido

O comando **show logging** mostra os pacotes ativos enviados para o endereço IP do Prime Infrastructure a partir do WLC.

Insira os seguintes comandos:

```
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
                                     entPhysicalEntry.7.2067 = Gi2/1/1 Container
 --More--
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
```

Da Prime Infrastructure

SNMPWALK entre dispositivos.

Insira os seguintes comandos:

```
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 = comunidade snmp
```

10.201.234.36 = WLC IP

Esse é o resultado se a acessibilidade estiver lá:

DISMAN-EVENT-MIB::sysUpTimeInstance = Timeticks: xx.xxx