將SD-WAN ISR1100路由器從Viptela OS遷移到 Cisco IOS XE

目錄

簡介 必要條件 需求 採用元件 背景 升級 從vManage升級到Cisco ISR1100軟體 從CLI升級到Cisco ISR1100軟體Cisco IOS XE 驗證 vManage GUI vManage GUI vManage CLI 疑難排解

簡介

本文檔介紹將SD-WAN ISR1100路由器從Viptela OS遷移到Cisco IOS[®] XE^的過程。

必要條件

需求

思科建議您瞭解思科軟體定義廣域網(SD-WAN)。

採用元件

本文中的資訊係根據以下軟體和硬體版本:

- vManage版本20.6.3
- vBond版本20.6.3
- vSmart版本20.6.3
- ISR1100-4GLTE版本20.4.1.2

軟體下載頁面提供用於遷移的軟體映像。

Cisco IOS XE:isr1100be.universalk9.<release>.SPA.bin

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。如果您的網路運作中,請確保您瞭解任何指令可能造成的影響。

背景

本文檔的具體要求包括:

- Cisco vManage 20.4.1版或更高版本
- 思科整合多業務路由器(ISR)1100和ISR1100X版本20.4.1或更高版本

所列平台支援Viptela OS和Cisco IOS XE之間的遷移:

- Cisco ISR1100X-6G
- Cisco ISR1100X-4G
- Cisco ISR1100-6G
- Cisco ISR1100-4G
- Cisco ISR1100-4GLTE (Cisco ISR1100-4GLTENA和Cisco ISR1100-4GLTEGB)

升級

從vManage升級到Cisco ISR1100軟體

1.在Cisco vManage GUI中,選擇Maintenance > Software Repository > Add New Software > vManage,如下圖所示。

E Cisco vManage	Select Reso	ource Group+			0	٩					
				Software Images	Virtual Images	Firmware					
Note: Software version is compatib	le with specified cor	ntroller version or less									
Q, Search										5	7
Add New Software ~											
vManage									Total Rows: 0	ø	٩
Remote Server - vManage	ller Version	Software Location	Available SMU Versions	Available Files		Image Type	Architecture	Version Type Name	Updated On		
				No dat	a available						

2.在彈出視窗中,按一下Browse,然後按一下Upload。

Upload Software to vManage

	Upload Image (Total:1)	
$\overline{\uparrow}$	isr1100be-universalk9.17.06.03a.SPA.bin 768.15 MB	×
Drag and Drop File Or Browse		



3.上傳開始後,請勿刷新Web瀏覽器,如下圖所示。

😑 Cisco vManage	Select Resource Group+ Maintenance - Software Repository			4
	Software Images Virtual Images Firmware			
Note: Software version is compatible	ie with specified controller version or less			
Q Search				
Add New Software 🗸	Upload Software to vManage	× Total Rows: 2	g	0
Software Version C		d On		
17.06.03a.0.3.1649449105 2	Do not refresh the Web Browser or click Web Browser Back button while image is being uploaded File Uploading (Totat:1)	2022 9:03:44 PM		
17.04.02.0.2620.1624624 2	isr1100be-universalk9.17.06.03a.SPA.bin	2022 9:24:58 PM		
	591.14 MB of 768.15 MB (76% done)			

4.在「軟體資料檔案庫」部分,驗證是否已上傳映像,如下圖所示。

	■ Cisco vManage	Select Resource	e Group+		Maintenance -	Maintenance - Software Repository					
					Software Images Virt	tual Images Firmware					
	Note: Software version is com	patible with specified controlle	er version or less								
	Q, Search									V	
	Add New Software 🗸										
1									Total Rows: 3	0 (ĝ
	Software Version	Controller Version	Software Location	Available SMU Versions	Image Type	Architecture	Version Type Name	Available Files	Updated On		
	17.06.03a.0.3.1649449105	20.6.x	vmanage	0	Software	x86_64	software	[c1100-universalk9.17.06.03a.SPA.bln]	17 Jun 2022 9:03:44 PM .		
	17.05.03a.0.3.1649420665	20.6.x	vmanage	0	Software	x86_64	software	[Isr1100be-universalk9.17.06.03a.SPA.bin]	17 Jun 2022 9:36:50 PM .		
1	17.04.02.0.2620.1624624	20.4.x	vmanage	0	Software	x86_64	software	[c1100-universalk9.17.04.02.SPA.bin]	17 Jun 2022 9:24:58 PM .		ʻ.

5.導覽至維護 > 軟體升級 > WAN Edge 部分。 選中Hostname覈取方塊以選擇裝置,然後按一下 Upgrade。

😑 Cisco vManage	Select Resource Group+		Ma	aintenance · Software U	pgrade				0	≡ ©	
			WAN Edge	Controller vManage	Firmware						
Q, Search											∇
1 Rows Selected Upgrade	Upgrade Virtual Image Activat	Virtual Image Delete \	/irtual Image Actival	te Deactivate Delete	Available Software	Set Default Version					
Device Group All 🗸									Total Rows: 1	Ø	生像
Hostname System IP	Chassis Number	Site ID D	evice Model React	hability Current Version	Available Versions	Default Version	Available SMUs	Available Services	Up Since		
🛃 💮 vedge_nutella	ISR1100-4GLTENA	100 15	SR 1100 4GLTE* (Vig reach	table 20.4.1.2	19.2.1 20.1.3	20.1.3		0	17 Jun 2022 6:33:00 PM	A CDT	

- 6.按一下vManage單選按鈕。
- 7.在「Version」下拉式清單中選擇Cisco IOS XE映像。
- 8. 選中Activate and Reboot 覈取方塊和Confirm 覈取方塊。
- 9.按一下Upgrade。

Software Upgrade



10.裝置開始升級過程並需要幾分鐘。您可以在「任務」檢視中驗證是否成功完成。

=	Cisco vManage	Select Resource Group+						\bigcirc	₫ 0				
Softw	vare Install 🕗 Validation Succe	195						nitiated By: admin					
Total	Task: 1 In Progress : 1												
Q	Search									∇			
								Total Row	ns: 1 📿	3 @			
Θ	Status	Message	Hostname	System IP	Site ID	Device Type	Device Model	vManage IP					
Θ	O In progress	Device: Downloading http://1.1	🛞 vedge_nutella	1.1.1.100	100	WAN Edge	ISR 1100 4GLTE* (Viptela OS)	1.1.1.1					
	[18]-Jun-2022 [13]:47 U(C) gorgent Results of Dir Version 1: 17.66.03a.0.1.146H32665 * [18]-Jun-2022 [13]:47 U(C) gorgent Results of Dir Version 1: 17.66.03a.0.1.146H32665 * [18]-Jun-2022 [13]:47 U(C) Gordigaring uggreds confirm tizer to 13 sinches * [18]-Jun-2022 [13]:47 U(C) Gordigaring uggreds confirm tizer to 13 sinches * [18]-Jun-2022 [13]:47 U(C) Gordigaring uggreds confirm tizer to 13 sinches * [18]-Jun-2022 [13]:47 U(C) Software Regge (13:1108be-universalk9.17.66.03a.598.bin?deviceId=1.1.1.100 * [18]-Jun-2022 [13]:53 U(C) Device: Downloading http://l.1.1.110000/software/package/isr1100be-universalk9.17.66.03a.598.bin?deviceId=1.1.1.100 *												
=	Cisco vManage							٥	≡ ⊘	4			
0	Search									∇			
								Total Row	s:1 🖸	: @			
Θ	Status	Message	Hostname	System IP	Site ID	Device Type	Device Model	vManage IP					
Θ	Success	Operation status verification done	. 💮 vedge_nutella	1.1.1.100	100	WAN Edge	ISR 1100 4GLTE* (Viptela OS)	1.1.1.1					
	[18-3un-2022 3:02:56 UTC] ([18-3un-2022 3:03:56 UTC] ([18-3un-2022 3:03:56 UTC] ([18-3un-2022 3:04:56 UTC] ([18-3un-2022 3:04:56 UTC] ([18-3un-2022 3:05:57 UTC] ([18-3un-2022 3:05:57 UTC] ((20/60) Operation status being verif; (20/60) Operation status being verif; (20/60) Operation status being verif; (30/60) Operation status being verif; (30/60) Operation status being verif; (30/60) Operation status being verif;	ied by vflanage lied by vflanage lied by vflanage lied by vflanage lied by vflanage lied by vflanage lied by vflanage						× •				

11.導覽至Configuration > Devices,然後點選WAN Edge List頁籤。

12.在顯示屏的右側,按一下(...)更多操作,然後選擇「Migrate Device」。

≡ Ci	sco vManage	Select Resource Group	•		Configuration · Devices					○ =	04
					WAN Edge List Controllers						
Qs	earch										Y
Change	Mode V Uploa	d WAN Edge List Export Boots	Serial No./Token	Enterorise Cert Serial No	Certificate Expiration Date	Subject SUDI serial #	Hostname	System IP	Total F Site ID	łows: 8 📫	C +@
\odot	ISR 1100 4GLT	ISR1100-4GLTENA-		NA	NA	object oool pink k	Router	1.1.1.100	100	CLI	
\odot	ASR1001-X			. NA	NA		**	**	Running Local Co	Configuratio	DN
\odot	vEdge Cloud			NA	Jun 09 06:07:23 2032 UTC				Delete W Copy Co	IAN Edge	
Ø	vEdge Cloud			. NA	NA				Generate Migrate	Bootstrap	Configuration
\bigcirc	CSR1000v			NA	NA				Template Device B	t Log dring Up	-
Ø	vEdge Cloud			NA	NA		**	**		CLI	
@	CSR1000v			. NA	NA					CLI	
Ø	CSR1000v			NA	NA					CLI	

13.在「遷移裝置」對話方塊中,按一下是以確認遷移。

Migrate Device

Device will be switched to cEdge, incase of vEdge to cEdge switch all vEdge stats, events history & configs will be lost. For new Nutella devices the OS change will be persisted Are you sure you want to migrate the Device?



注意:升級後,裝置只有基本配置來建立與SD-WAN重疊的控制連線。您可以使用 vManage新增其他配置。

從CLI升級到Cisco ISR1100軟體Cisco IOS XE

本節適用於Cisco ISR1100和ISR1100X版本20.4.1或更高版本。

1.在vEdge路由器上傳輸映像isr1100be.universalk9.<release>.SPA.bin。

<#root>

Router#

request software install http/ftp/directory path (<u>http://,ftp://,scp://,/</u>)> reboot

2.重新啟動後,檢驗控制連線是否已建立。

Router#	how :	sdwan control cos	nnections											
						PEER		PEER			CONTRO	OLLER		
PEER	PEER	PEER	SITE	DOMAIN	PEER	PRIV	PEER	PUB			GROUP			
TYPE	PROT	SYSTEM IP			PRIVATE IP	PORT	PUBLIC IP	PORT	ORGANIZATION	LOCAL COLOR	PROXY	STATE	UPTIME	ID
vsmart	dtls	1.1.1.3				12546		12546		default	No	up	0:00:00:24	
vbond	dtls	0.0.0.0				12346		12346		default		up	0:00:00:28	
vmanage	dtls					12946		12946		default	No	up	0:00:00:26	

3.確保升級已確認。

<#root>

Router#

request platform software sdwan software upgrade-confirm



使用本節內容,確認您的組態是否正常運作。

vManage GUI

導覽至Administration > Maintenance > Software Upgrade。在Current Version列中驗證版本。裝置顯示Cisco IOS XE OS。

≡ Cisco vMan	nage ၇ s	Select Resource Group	•		Maintenance · Soft	ware Upgrade				\bigcirc	≡ ⊙
				•	VAN Edge Controller vMar	nage Firmware					
Q Search											
0 Rows Selected											(
Device Group All 🗸										Total Rows: 1	Ø :
Hostname	System IP	Chassis Number	Site ID	Device Model	Reachability Current Vers	ion Available Versions	Default Version	Available SMUs	Available Services	Up Since	
Router	1.1.1.100	ISR1100-4GLTEN	IA 100	ISR 1100 4GLTEN	A (Creachable 17.06.03a.0	1.3	17.06.03a.0.3	0	0	17 Jun 2022 10:04:00	PM CDT

vManage CLI

輸入命令 show romvar 驗證遷移在MIGRATION_STATUS上是否成功。

<#root>

Router#

show romvar

```
ROMMON variables:
PS1 = rommon ! >
CRYPTO_BI_THPUT = 10000
RET_2_RTS =
BOOT = bootflash:packages.conf,1;
DEVICE_MANAGED_MODE = controller
RANDOM_NUM = 342435660
BSI = 0
RET_2_RCALTS =
MIGRATION_STATUS = SUCCESS<<<<<<<
BIS_MODE = 2
```

疑難排解

本節提供的資訊可用於對組態進行疑難排解。

驗證Cisco IOS XE中的日誌:

驗證vEdge中的日誌:

etc/Viptela/vedgemigration.cfg

關於此翻譯

思科已使用電腦和人工技術翻譯本文件,讓全世界的使用者能夠以自己的語言理解支援內容。請注 意,即使是最佳機器翻譯,也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準 確度概不負責,並建議一律查看原始英文文件(提供連結)。