Recover Standalone vManage by Disaster Recovery

Contents

Introduction Background Information Backup Configuration-db Recover vManage Step 1. Minimum Configuration on vManage Step 2. Copy Backup Configuration and Root Certificate Step 3. Install Root Certificate Step 4. Update BasicInformation Step 5. Install vManage Certificate Step 6. Restore The Database Step 7. Check Services Step 8. Reauthenticate Controllers Step 9. Send Updates to Controllers

Introduction

This document describes the steps involved to restore vManage by utilization of a configuration-db backup.

Background Information

This document assumes that a configuration-db backup has been taken periodically and for some reason, the standalone vManage is irrecoverable and needs a software reset or a new install.

This document helps you to recover all the policies, templates, configurations, and Edge device certificates.

Backup Configuration-db

vManage_rcdn01# request nms configuration-db backup path 05_08_20_configdb
Starting backup of configuration-db
config-db backup logs are available in /var/log/nm/neo4j-backup.log file
Successfully saved database to /opt/data/backup/05_08_20_configdb.tar.gz

scp to an external server.

```
vManage_rcdn01# vshell
vManage_rcdn01:~$ scp /opt/data/backup/05_08_20_configdb.tar.gz user@10.2.3.1://home/ftpuser/ftp/amaugus
amaugust@10.2.3.1's password:
05_08_20_configdb.tar.gz 100% 484KB 76.6MB/s 00
```

Recover vManage

Simulate a disaster by a reset of the vManage by the command:

vManage_rcdn01# request software reset

Now that you have a fresh vManage that looks like the one shown, it is advisable to adhere to the recovery process in the correct sequence before you restore the backup.

=	cisco Cisco vi	Manag	çe					
-	Dashboard		DASHBOARD					
□	Monitor	>	vSmart - 0	WAN Edge - 0	vBond - 0	10		
۵	Configuration	>	•	•		vManage - 1		
٩	Tools	>	Control Status (Total 0)		Site Health (Total 0)	Transp		
÷	Maintenance	>	Control Up	0	S Full WAN Connectivity	0 sites < 10 M		
-	Administration	>	Product			10 Mb		
8	vAnalytics >		Partial		9 Partial WAN Connectivity	O sites 100 M		
			Control Down	0	8 No WAN Connectivity	> 500 l		
			WAN Edge Inventory		WAN Edge Health (Total 0)			
			Total	0				
			Authorized	0	0 0	0		
			Deployed	0				
			Staging	0	Normal Warning	Error		

Step 1. Minimum Configuration on vManage

```
system
                       vManage_rcdn01
host-name
 system-ip
                       xx.xx.xx.xx
 site-id
                       100
                       ****.cisco
 organization-name
 vbond vbond.list
 T
!
vpn 0
host vbond.list ip 10.2.3.4 10.2.3.5
 interface eth0
  ip address 10.1.3.8/24
  tunnel-interface
  no shutdown
```

```
!
ip route 0.0.0.0/0 10.1.3.1
!
vpn 512
interface eth1
    ip address 10.11.3.8/24
    no shutdown
!
ip route 0.0.0.0/0 10.1.3.1
!
```

Step 2. Copy Backup Configuration and Root Certificate

<#root>

```
vManage_rcdn01:~$ scp am****@xx.xx.xx://home/ftpuser/ftp/am****/05_08_20_configdb.tar.gz .
am****@xx.xx.xx's password:
05_08_20_configdb.tar.gz 100% 484KB 76.6MB/s 00:0
```

Verify

```
vManage_rcdn01:~$ ls -lh
total 492K
-rw-r--r-- 1 admin admin 394 May 8 15:20 archive_id_rsa.pub
-rwxr-xr-x 1 admin admin 485K May 8 15:3905_08_20_configdb.tar.gz
```

Copy root certificate from other controller:

```
vManage_rcdn01:~$ scp admin@vbond://home/admin/root.crt .
viptela 18.4.4
admin@vbond's password:
root.crt 100% 1380 2.8MB/s 00:00
```

Step 3. Install Root Certificate

```
vManage_rcdn01# request root-cert-chain install /home/admin/root.crt
Uploading root-ca-cert-chain via VPN 0
Copying ... /home/admin/root.crt via VPN 0
Updating the root certificate chain..
Successfully installed the root certificate chain
```

Step 4. Update Basic Information

Navigate to Administration > Settings and configure the basic information for vBond IP, Organization Name, and certificate.

=	- Cisco vN	lanag	7e						
_	cisco		,-						
55	Dashboard			ADMINISTRATION SETTINGS					
	Monitor	>		Organization Name	a st.cisco				
۵	Configuration	>		vBond	vbond t : 12346				
٩	Tools	>		Email Notifications	Disabled				
÷	Maintenance > Controller Certificate Authorization			Controller Certificate Authorization	Enterprise				
23.	Administration	>	1	WAN Edge of and overlife star Authorization	Lange and the second se	1			
				WAN Edge Cloud Certificate Authorization	Automated				
	Settings			Web Server Certificate	12 Jul 2024 5:30:30 PM				
	Manage Users								
				Enforce Software Version (ZTP)					
	Cluster Management Banner		Disabled						
	Integration Management VAnalytics Keverse Proxy Statistics Setting			Reverse Proxy	Disabled				
			Statistics Setting						

Step 5. Install vManage Certificate

Use the root.crt that is installed in Step 2.

=	cisco Cisco vi	Manag	e									
25			\$ co	NFIGURATION CERTI	FICATES							
		, I	WAN	Edge List Controlle	rs							
-			> Ser	nd to vBond								
		`										
	Devices Q Search Options V											
	Certificates		Q.			Hastana						
			>	CSR Generated	vManage	vManage_rcdn01	1.11.11.11	100	No certificate installed			
					CSR					×		
		r SaaS			IP A	ddress: 1.11.11.11						
										± Download		
					-	-BEGIN CERTIFICATE REQUES	iT					
					M	IID I JCCAJYCAQAWge0xCzAJB REwDwYDVQQHEwhTYW4gSr	gNVBAYTA/VTMRMW n9zZTEX/MBUGA1UEC	adMOYW1hdWd1c	Vxp2m9yomin 3QuY2lzY28xFDAS			
٩,		>			N	NMtNDYyYS1hNzE3LTVmMD8 cNAOkREbNadXBab3 000476	EzYjMxZDUyZi0wLnZp	cHRIbGEuY29tMS	IWIAYJKoZI			
÷		>			A	28AMIIBCgKCAQEAp4czwUdv UL pAThbyBaYo3/5302D214t	vqaGpfQS0hmcuJw/ls 8CwEzmtWo/aT ISPVs	aNINMGKKGb6Rf	BbKqe6m/8l wScImG2			
					JC. V	iysSfqad3lg4dl3PqM9L9bHYg a2Y+qAlKfVTPHyka8EiabZvC	CeVkFn9bjpMzuTKo0 YSsk/XvOmfxYFWGpl	00W26zhHW+Pcfs PavTM4DPclybioU	BKR4Ae5x 93t3vvY			
-		´			Fe H	wEqJ/nUVj6dd6kOGtDPddIRx wISsWfuChJ76dBDwmIM4k9i	Oiqb9Zm9b710Z0JiA xyySq8shXXsJmQIDAI	pJVnQi+dJmd0ttX QABoDswOQYJKo	I2h0M29 ZihveNAQkO			
		<u></u>			M	SwwKjAJBgNVHRMEAJAAMB	DGA1UdDgQWBBQwK	MQSk4Q40j9Cw0	mOVbaJOMSaSjAN			
					_					_		
									[Close		



≡	cisco Cisco vi	/lanage													
	Dashboard		İ TASI	K VIEW											
▫	Monitor	>	Install C	Install Certificate											
\$	Configuration	>	Total Ta	sk: 1 Success : 1											
	Devices														
	Certificates		Q			Search Options 🐱									
			2	Status		Message		Device Type		Device IP					
	Network Design		~	Success		Successfully synced	l vEdge list on vManage-9	vManage		92302e77-c05c-462a-a71					
	Templates		1	8-May-2020 16:15:06 8-May-2020 16:15:06	5 UTC] Install Certin 5 UTC] Pushing seria	ficate, on device l list to vManage-	92302e77-c05c-462a-a71 92302e77-c05c-462a-a71	7-5f013b31d52f, st 7-5f013b31d52f (vM	arted by user "admin" anage_rcdn01)	from IP address "169.					
	Policies		1	8-May-2020 16:15:06 8-May-2020 16:15:07	UTC] Started proces UTC] Completed proc	ssing serial list cessing serial lis	file on vManage-92302e t file on vManage-9230	77-c05c-462a-a717- 2e77-c05c-462a-a71	5f013b31d52f (vManage 7-5f013b31d52f (vMana	_rcdn01) ge_rcdn01)					
			1	8-May-2020 16:15:07 8-May-2020 16:15:07	UTC] Done - Push v UTC] Pushed serial	Smart List for vMa list to vManage-9	nage-92382e77-c85c-462 2382e77-c85c-462a-a717	a-a717-5f013b31d52 -5f013b31d52f (vMa	f (vManage_rcdn01) nage_rcdn01)						
	secunty		[8-May-2020 16:15:07	UTC] Updated contro	ollers with new ce	rtificate serial numbe	r of vManage-92302	e77-c05c-462a-a717-5f	013b31d52f					
	Cloud onRamp for	SaaS													
	Cloud onRamp														
	Natwork Hub														
	Herrorichau														
٩	Tools	>													
÷	Maintenance	>													
	Administration	>													



Step 6. Restore The Database

<#root>

vManage_rcdn01# request nms configuration-db restore path /home/admin/05_08_20_configdb.tar.gz

Configuration database is running in a standalone mode 0 [main] INFO com.viptela.vmanage.server.deployment.cluster.ClusterConfigurationFileHandler - Trying to 4 [main] INFO com.viptela.vmanage.server.deployment.cluster.ClusterConfigurationFileHandler - Working of Successfully saved cluster configuration for localhost Starting DB backup from: localhost Creating directory: local cmd to backup db: sh /usr/bin/vconfd_script_nms_neo4jwrapper.sh backup localhost /opt/data/backup/local Finished DB backup from: localhost Stopping NMS application server on localhost Stopping NMS configuration database on localhost Reseting NMS configuration database on localhost Restoring from DB backup: /opt/data/backup/staging/graph.db-backup cmd to restore db: sh /usr/bin/vconfd_script_nms_neo4jwrapper.sh restore /opt/data/backup/staging/graph Successfully restored DB backup: /opt/data/backup/staging/graph.db-backup Starting NMS configuration database on localhost Waiting for 10s before starting other instances... Polling neo4j at: localhost NMS configuration database on localhost has started. Updating DB with the saved cluster configuration data Successfully reinserted cluster meta information Starting NMS application-server on localhost Waiting for 120s for the instance to start... Removed old database directory: /opt/data/backup/local/graph.db-backup Successfully restored database

This step takes more time and it depends on the backup.

You can verify the process by tailing the logs on vShell.

<#root>

```
vManage_rcdn01:~$
```

tail -fq /var/log/nms/vmanage-server.log /var/log/nms/neo4j-out.log

Step 7. Check Services

```
vManage_rcdn01# request nms all status
```

Step 8. Reauthenticate Controllers

Currently, you can observe that all policies, templates, and configurations have been loaded onto vManage, but all controllers are down.

≡	cisco Cisco vi	Manaş	çe					
8	Dashboard		B DASHBOARD					
□	Monitor	>	2.4		3 🗸	2↓	10	
۵	Configuration	>	vSmart - 2	•	WAN Edge - 3	vBond - 2	vManag	je - 1
٩	Tools	>	Control Status (Total 5)			Site Health (Total 3)		Transp
÷	Maintenance	>	Control Up		5	S Full WAN Connectivity	3 sites	< 10 N
*	Administration	>	Partial		0	Partial WAN Connectivity	0	10 Mb
	vAnalytics	>	-			· Parual man connectivity	U sites	100 M
			Control Down		0	8 No WAN Connectivity	0 sites	> 500
			-					
			WAN Edge Inventory			WAN Edge Health (Total 0)		Transp
			Total		16			
			Authorized		16	0 0	0	
			Deployed		3			
			Staging		0	Normal Warning	Error	

You need to re-authenticate all the controllers.

Navigate to Configuration > Devices. Edit each controller and fill in the management IP address (management IP can be found in the local configuration) username and password.

=	cisco VManago	cisco vManage											
	Dashboard	CONFIGURATIO	CONFIGURATION DEVICES										
	Monitor >	WAN Edge List Controllers											
\$	Configuration >	 Add Controller 	◆ Add Controller										
	Devices	Q		Search Options 🐱									
		Controller Type	Hostname	System IP	Site ID	Mode	Assigned Template	Device Status	Certificate Stat				
	Certificates	vManage		-	-	CLI	-	In Sync	Installed				
	Network Design	vManage	vManage_rcdn01	1.11.11.11	100	CLI	-	In Sync	Installed				
		vSmart	vsmart	1.1.1.2	100	CLI	34) (1)	In Sync	Installed				
	Templates	vSmart	vsmart_rtp	1.2.2.2	100	CLI	-	In Sync	Installed				
	Policies	vBond	vbond	1.1.1.3	100	CLI	-	In Sync	Installed				
		vBond	vbond_rtp	1.1.2.2	100	CLI	-	In Sync	Installed				
	Security												
	Cloud onRamp for SaaS												
	Cloud onRamp												
	Network Hub												

Step 9. Send Updates to Controllers

= '	cisco Cisco vMa	Cisco vManage												
	Dashboard		🌣 cor	CONFIGURATION CERTIFICATES										
ı م	Monitor	>	WAN E	AN Edge List Controllers										
• •	Configuration	>	- our											
	Devices													
1	Certificates		Q			Search Options 🗸					_			
			2											
	Network Design		>	vBond	vbond	1.1.1.3	28 Mar 2023 8:33:00 PM CDT	30b8e052-3c	Installed	100	06			
	Templates		>	vBond	vbond_rtp	1.1.2.2	20 Apr 2023 2:07:00 PM CDT	9ff911c1-f1a2	Installed	100	27			
			>	vSmart	vsmart	1.1.1.2	21 Apr 2023 8:02:00 PM CDT	0e3ce626-b1	vBond Updated	100	4E			
	Policies		>	vSmart	vsmart_rtp	1.2.2.2	21 Apr 2023 7:49:00 PM CDT	7c5bf5ab-6a8	vBond Updated	100	36			

≡	cisco VMana	ige							
	Dashboard	1	CONFIGURATIO	N CERTIFICATES					
□	Monitor >		WAN Edge List	Controllers					
٠	Configuration >	H	P denu to controllera						
	Devices		0						
	Certificates		Q			Search Options V			
			State	Device Model	Chass	sis Number		IP Address+	Serial No./Token
	Network Design		Ø	vEdge Cloud	ceaf1	eb3-62cf-059d-634a-5649fca28125	Site03_vEdge	1.1.1.6	EB0C7777
	Templates		e	C1101-4P	C1101	1-4P-FGL221792P7	Site01_C1101	1.1.1.5	01633D8F
	rempiates		0	ISR4451-X	ISR44	51-X/K9-F0C16491MWM	Site02_ISR44	1.1.1.4	F42E
	Policies		۲	CSR1000v	CSR-9	53188C0-2D85-5D48-A24A-2CEEE71			Token - 40fcfc5d96bc40fcc39a0d7bfbc7
	- The Bridger		(i)	CSR1000v	CSR-9	1AA789A-C7E7-88E9-F205-1587322		-	Token - 18bb348fdefc64ef3b5712046ccl

Now, you see all the devices can be managed by vManage.

≡	cisco Cisco vi	Manage										
-	Dashboard		DASHB	OARD								
	Monitor	>	8	2 ↑		3 ↑		æ	2 ↑		1 0	
۵	Configuration	>	w	vSmart - 2	•	WAN Edge - 3		•	vBond - 2	-	vManag	je - 1
a	Tools	>	Control St	atus (Total 4)			Site He	alth (Total 2)				Trans
2			Control U	p		4	0	Full WAN Connec	tivity		2 sites	< 10 1
-	Maintenance	`									▲ sites	10 M
*	Administration	>	Partial			0	0	Partial WAN Conr	nectivity		0 sites	100 N
	vAnalytics	>										> 500
			Control D	own			0	No WAN Connect	ivity		0 sites	
			WAN Edge	Inventory			WAN E	dge Health (Total	2)			Transp
			Total			15						100 %
			Authorized			15 (2) 0 0						
			Autorized									50 %
			Depioyed			3		\smile				
			Staging			0		Normal	Warning	Error		0
			-									
			тор Аррис	ations		Ψu	Арриса	ition-Aware Kouti	ng			
							~	Site02_ISR4451:def	ault-Site03 vEdge_Cloud_	Avg. Latency (ms)		A.
							~	Site01_C1101:defau	ult-Site02_ISR4451:default	32.167		0.0
				No data to	display		~	Site02_JSR4451:def	ault-Site01_C1101:default	32		0
							~	Site01_C1101:defau	ult-Site03_vEdge_Cloud.d	25.917		0

=	Cisco vManage						
	Dashboard 3	CONFIGURATION TEMP	LATES				
□	Monitor >	Device Feature					
٠	Configuration >	• Add Template					
	Devices	Template Type Non-Default	· Q		Search Options 🐱		
		Name	Description	Туре	Device Model	Device Templates	Devices Attached
	Certificates	vEdge_VPN_0	Default Transport VPN tem	WAN Edge VPN	C1111-4PLTEEA C1117-4P	0	0
	Network Design	Default_AAA	Default AAA template settin	AAA	C1111-4PLTEEA C1117-4P	1	1
		cEdge_VPN_0	Default Transport VPN tem	WAN Edge VPN	C1111-4PLTEEA C1117-4P	1	1
	Templates	vEdge_VPN_512_Interface	VPN 512 interface config	WAN Edge Interface	C1111-4PLTEEA C1117-4P	0	0
	Policies	vEdge_VPN_0_Interface	VPN 0 interface config	WAN Edge Interface	C1111-4PLTEEA C1117-4P	0	0
		Default_Banner	Banner for amaugust.cisco	Banner	ISR4451-X C1101-4P vEd	1	1
	Security	vEdge_VPN_512	VPN 512 add default route	WAN Edge VPN	C1111-4PLTEEA C1117-4P	0	0
	Cloud onRamp for SaaS	cEdge_VPN_0_Interface	VPN 0 interface config	WAN Edge Interface	C1111-4PLTEEA C1117-4P	1	1
		cEdge_VPN_512	VPN 512 add default route	WAN Edge VPN	C1111-4PLTEEA C1117-4P	1	1
	Cloud onRamp	cEdge_VPN_512_Interface	VPN 512 interface config	WAN Edge Interface	C1111-4PLTEEA C1117-4P	1	1
	Network Hub						