采用 Preload Image 方式来升级 AP

实战操作:

控制器当前集群下(VMM+VMCx2 cluster), Partition 1 是 Default boot, 版本是 v8.7.1.3。

(mm-active) [mynode]	#show image version
Partition Software Version Build number Label Built on	 : 0:0 (/mnt/disk1) : ArubaOS 8.7.1.1 (Digitally Signed SHA1/SHA256 - Production Build) : 78245 : 78245 : Mon Dec 14 20:40:11 UTC 2020
Partition Software Version Build number Label Built on	: 0:1 (/mnt/disk2) **Default boot** : ArubaOS 8.7.1.3 (Digitally Signed SHA1/SHA256 - Production Build) : 79817 : 79817 : Wed Apr 7 00:19:09 UTC 2021

(VMC1) [MDC] #show imag	ge version
Partition	: 0:0 (/mnt/disk1)
Software Version	: ArubaOS 8.7.1.3 (Digitally Signed SHA1/SHA256 - Production Build)
Build number	: 79817
Label	: 79817
Built on	: Wed Apr 7 03:28:51 UTC 2021
Partition	: 0:1 (/mnt/disk2) **Default boot**
Software Version	: ArubaOS 8.7.1.3 (Digitally Signed SHA1/SHA256 - Production Build)
Build number	: 79817
Label	: 79817
Built on	: Wed Apr 7 03:28:51 UTC 2021

(VMC2) [MDC] #show	image version
Partition	: 0:0 (/mnt/disk1)
Software Version	: ArubaOS 8.7.1.3 (Digitally Signed SHA1/SHA256 - Production Build)
Build number	: 79817
Label	: 79817
Built on	: Wed Apr 7 03:28:51 UTC 2021
Partition	: 0:1 (/mnt/disk2) **Default boot**
Software Version	: ArubaOS 8.7.1.3 (Digitally Signed SHA1/SHA256 - Production Build)
Build number	: 79817
Label	: 79817
Built on	: Wed Apr 7 03:28:51 UTC 2021

目标是将所有 VMM 和 VMC 的 Partition 0 上传固件 v8.7.1.6, 然后将 Partition 0 的固件 v8.7.1.6 预先 preload image 到 AP 上,这些操作都是可 以在当前正在运行业务下完成的,等到变更窗口时,我们仅仅需要的是重启 AP 的时间,减少了 AP 下载固件的时间。

详细操作步骤截图:

1) 将新的固件采用 HTTP 或者 FTP 方式上传到控制器的备用分区(非 Default Boot 分区,这里是 Partition 0),如果控制器在一个集群下,建议大家

都统一放置在相同的分区上,比如都是 Partition 0。 注意:更新后不 要立即重启控制器。

针对 VMM

通过 Maintenance-→Software Management→Upgrade 中的 Local File 来 升级

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← Mobility Master > mm-activ	e			¢)
Ck Mobility Master	Configuration Diagnostics	Upgrade Rebo	ot Boot Parameters Service Module Packages	About
 00:0c:29:0f:9c:3e mm-active Managed Network (3) yang (3) 	Maintenance Software Management Configuration Management	Upgrade using: Image file name: Partition to upgrade Reboot controller at	Local File Aruba05,MM_8.7.1. Browse O Partition 0 Partition 1 ter upgrade:	
S VMC1		Current Partition	Usage	
Co VIVICZ			PARTITION 0 (DEFAULT BOOT)	PARTITION 1
VMC3		Partition	0:0(/mnt/disk1)	0:1(/mnt/disk2)
		Software Version	ArubaOS 8.7.1.6 (Digitally Signed SHA1/SHA256 - Production Build	ArubaOS 8.7.1.3 (Digitally Signed SHA1/SHA256 - Production Build)
		Build Number	81786	79817
		Label	81786	79817
		Built On	Thu Oct 7 07:39:55 UTC 2021	Wed Apr 7 00:19:09 UTC 2021
		Image Upgrad	fed Successfully.	Upgrade

针对 VMC1 和 VMC2

方法 1: 可以在 MM 上,利用 Maintenance→Software Management→Controllers and Clusters,可以采用 ftp 统一升级集群中 的每台控制器。

	ł		CONTRO 2	ACCESS POINTS O O O O	CLIENTS ALERTS ○ 0 ≥ 0 △ 1			admin ~
← Managed Network >								6
Mobility Master 0000c:29:0f:9c:3e mm-active	Dashboard Configuration Maintenance Software Management	Controllers And Cluster	AP Prelo	ad Image	ACCESS POINTS	GROUP	0 11	
Managed Network (J)		Counter (2 Co) INSTALLATION SETTING When: Specify image file fo Use upgrade profile: Server if address: Image path: Protocol: Username: Password: Software to install: Partition:	S Now Coccellon, name i	E.7.1.3_7987 Later Generation of the filesenver (neg. 8.7.1.3_00000)	a sfer une 1 tes specify default public	,mdyang		Cancel
	Appa101108 0712							

方法 2: 可以通过 GUI 来分别访问集群中的每台控制器, 然后通过 Maintenance→Software Management→Upgrade 中的 Local File 来升级

aruba	MOBILITY CO VM	ONTROLLER C1				ACCESS POINTS ⊘ 1 ③ 0	CLIENTS ALERTS		0	admin 🗸	
Mobility Master: 10.1	.101.10										
Dashboard Configuration		Upgrad	Rebo	oot Boot Pa	arameters About						*
Diagnostics	_	Upgra	de using:		Local File 💙						
Maintenance		Image	file name:		ArubaOS_VMC_8.7.1	rowse					
Software Manag	gement	Partiti	on to upgrad	le:	Partition 0 Partition 0	rtition 1					
Configuration Ma	anagement	Reboo	t controller a	after upgrade:	0						
Access Point		Curr	ent Partitio	n Usage							
				PARTITION 0 (D	EFAULT BOOT)		PARTITION 1				
		Part	tion vare Version	ArubaOS 8 7 1	6 (Digitally Signed SH&1/SH&2	256 - Production Build)	0:1(/mnt/disk2) AruhaOS 8 7 1 3 (Digitally Signe	d SH&1/SH&256 - Production Build)			
		Build	i Number	81786	o (organity organica or in this in th	250 Troduction Dallay	79817	a shirth shares of thousand ballay			
		Labe	1	81786			79817				
		Built	On	Thu Oct 7 11:0	:26 UTC 2021		Wed Apr 7 03:28:51 UTC 2021		_		
		\odot	Image Upgra	ided Successfully.				Upgrade			
aruba	мов	ILITY CONT VMC2	ROLLER					CLIENTS ALERTS	5		
Mobility Master:	10.1.101.10	D									
Dashboard Configuration		ſ	Upgrad	de Rebo	ot Boot Paramet	ters About					
Diagnostics		_	Upgra	ade using:	Local	I File 💙					
Maintonanco						-05 1845 0 7 4					
Maintenance			Image	e file name:	Arub	aOS_VMC_8.7.1	Browse				
Software Ma	anagemen	t	Partit	ion to upgrade	e: 💿 Pa	rtition 0	Partition 1				
Configuratio	n Managen	nent	Rebo	ot controller a	fter upgrade: O						
Access Point			Curr	rent Partition	Usage						
			curr			ROOT)		PADTITION 1			
			Davt	ition	0:0/(mnt/disk1)	10001)		0:1/mot/dick2)			
			Coff	Norsion	ArubaOS 8 7 1 6 (Digita	ally Signed SHA1/SI	JA256 Broduction Build)	ArubaOC 9.7.1.2 (Digitally Sig	nod SUA1/SUA2E6 Drov	duction Pulls	ch)
			Soft	ware version	ArubaOS 8.7.1.6 (Digita	ally signed SHA1/SI	HA256 - Production Build)	ArubaOS 8.7.1.3 (Digitally Sig	ned SHAT/SHA250 - Pro	Juction Build	1)
			Build	u Number	01/80			/301/			
			Labe	el	81786			79817			
			Built	t On	Thu Oct 7 11:01:26 UT	C 2021		Wed Apr 7 03:28:51 UTC 2021			-
			\odot	Image Upgrad	ded Successfully.				L	Upgrade	

2)通过 AP Preload Image 界面,将指定的集群控制器的 Partition 0 分区 镜像 Preload 到 AP 上,可以设置并发下载的最大数量(建议是 100 个以 内,不建议太大,毕竟是在当前业务中操作,并发下载数量大的话会影响 当前 AC 和 AP 之间的现有通讯业务性能),然后点击 install

注意: 是在 Group 节点下, 导航到 Maintenance→Software Management→AP Preload Image.

Aruba MOBILITY MAST mm-active	ER		CONTROLLERS ACCESS ⊙ 2 ⊙ 0 ⊙ 1	CLIENTS CLIENTS ○ 0 ○ 0 ○ 0	ALERTS	
- Managed Network > yang >						
Mobility Master	Dashboard Configuration	Controllers And Clusters	AP Preload Image			
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Managed Network (3)	Software Management	cluster (2)	6.7.1.3_79817	ACCESS POIN	IIS EIIO /mdi	yang
C VMC2						
C VMC3		INSTALLATION SETTINGS				
		Partition: Maximum number of simultar APs to preload:	Partition O	Partition 1		
		AP Image Preload AP Statu	s Summary			
		CONTROLLER	AP IMAG	E PRELOAD STATE	COUNT	
		AP Image Preload Status				
		CONTROLLER NAME	GROUP IP	MODEL PRELOAD STA	START TIME END STATE	FAILURE COU FAILURE REAS
	ArubaMM-VA, 8.7.1.3					

3) 可以观察到每颗 AP 的 Preload 情况,状态和最终完成的情况,当所有的 AP 都 Preloaded 完成后。

AP Image Preid	ad AP Status Su	ummary							
CONTROLLER			AP IMAGE	PRELOAD STATE		COL	JNT		=
10.1.102.51			Preloading			1			
10.1.102.51			TOTAL			1			
AP Image Preid	ad Status								
CONTROLLER	NAME	GROUP	IP	MODEL	PRELOAD STA	START TIME	END STATE	FAILURE COU	FAILURE REAS
10.1.102.51	test-215	default	10.1.100.1	215	Preloading	2021-10-19 12		0	

	ER		CONTROLLERS	ACCESS POINTS	CLIENTS	ALERTS		
← Managed Network > yang >								
Ck Q	Dashboard Configuration	Controllers And Clusters	AP Preload Ima	ge				
00:0c:29:0f:9c:3e	Maintenance	Controllers/Clusters 1						
📼 mm-active	Software Management	NAME	CUR	RENT VERSION	ACCESS POIN	15	GROUP	
🗁 Managed Network (3)		cluster (2 ෩)	8.7.1	1.6_81786	1		/md/yang	
🔁 yang (3)								
C VMC1								
S VMC2								
		INSTALLATION SETTINGS Partition: Maximum number of simult APs to preload:	aneous download:	Partition 0 10 All APs	Partition 1			
		AP Image Preload AP Stat	us Summary					
		CONTROLLER		AP IMAGE PRELO	AD STATE	COUNT		
		10.1.102.51		Preloaded		1		
		AP Image Preload Status CONTROLLER NAME 10.1.102.51 cest.215	GROUP	IP Mod 10.1.100.1 215	EL PRELOAD STA Preloaded	START TIME 2021-10-19 12:07:51	END STATE -2021-10-19 12:09:49	FAIL_ FAIL
	Arubanne-wA, 8.7.1.6							

4) 我们接着在集群中的每台 AC 控制器上,都使用命令 apboot all local 来先重启所有的 AP。

(VMC1) [MDC] #apboot all local

5) 在所有 AP 重启过程中,我们必须尽快重启集群中的每台 AC(当然需要的时候,也要重启 MM),这样等 AP 重启好,AC 也会逐渐重启成功,这样 AP 会采用新版本和 AC 重启建立通讯。

(VMC1) [MDC] #reload