



某科技集团 Checkpoint 防火墙

升级方案

北京一实天勤科技有限公司

2023.4



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一、升级原因

因当前软件版本 R80.30 原厂已经停止支持,故需根据官方要求进行版本升级,本次升级到 R81.10。

二、升级准备

为保证在规定时间节点内完成升级,并确保升级之后遇特殊情况设备可顺利回退,需做如下升级准备。

2.1 配置备份

进行硬件设备备份:







选择 backup。完成后将文件下载到本地。

进行管理服务器配置备份;

命令行运行 expert 进入专家模式,

```
CP-SMC> expert
Enter expert password:
Warning! All configurations should be done through clish
You are in expert mode now.
```

cd \$FWDIR/bin/upgrade_tools/, 运行./migrate export 202304.tgz,

执行前关闭 smart console 客户端软件。





[Expert@CP-SMC:0]#	ls	
20230105.tgz	migrate	<pre>pre_upgrade_verifier</pre>
del_revision_files	migrate.conf	<pre>puv_report_generator</pre>
gtar	plugin_pack.conf	test.tgz
gzip	plugin_pack_compare	update_inspect_files
ips_upgrade_tool	plugin_upgrade_matcher	
mgmt_puv.sh	_ppidb.conf	
[Expert@CP-SMC:0]#		

2.2 升级包准备

提前准备好设备的可用升级包,登录设备 WEB 界面,在 Upgrades -Status and Actions下 check For Update 下载需要的安装包。

View mode: Advanced View mode: Advanced Ibound Route Filters A Valid license is required for downloads and updates. The trial license is currently active and will expire on 05-Mar.2023 B. Routing Bouting Options Beouting Options B. Routing Bouting Seconery Beouting Seconery B. Routing Monitor Image My Password B. Routing Monitor Beouting Monitor B. Route Discover Avaitability <th>ł</th>	ł
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可切换查看所有可用的安装包



右键进行安装包的验证。



c	Available for D	6	Varify Undata	
	Available for D		verily opdate)
	Available for D	2	Download	_)

系统会验证结果,显示 Installation Upgrade is allowed 后,进行 Download。

2.3 管理服务器快照

为快速进行配置服务恢复,建议在升级之前,由虚拟机管理员进行管理服务器 虚机镜像。

三、升级步骤

3.1 升级管理服务器

首先升级管理服务器,整体过程预计1小时:

在 web 界面,下载升级包界面,对应下载的安装包右键,选择 Upgrade 即可。





The package is installing: 45%

Step	Duration	Info
Initialization	Os	initializing
Preparation	8s	verifying the packag
Validation	6s	
Installation	1m2s	
4		

升级完成后,系统会自动重启,显示升级后的版本。

3.2 升级备机

升级备机,整体过程预计1小时:升级步骤同管理服务器,不再赘述,升级完成后,查看设备状态,设备运行无误后,准备升级主机。

3.3 主备切换,升级主机

命令行运行 cphaprob stat 或 show cluster state, 查看 HA 状态, Local 是当前操作主机。

Cluster Mod	e: Hig	h Availabili	cy (Active	Up) with	IGMP Membership	
ID	Unique A	ddress Assi	ned Load	State	Name	
1 (local) 2		100% 0%		ACTIVE STANDBY	CP-FW1 CP-FW2	

在 Active 的设备运行 Cluster XL_admin down, 会使当前主机状态为 down 状态, 使得流量切换至备机。

Cluster Mo	de: High Avail	ability	(Active	Up)	with	IGMP	Membership	
ID	Unique Address	Assigne	d Load	Sta	ate		Name	
1 (local) 2		0% 100%		DON ACT	VN CIVE		CP-FW1 CP-FW2	



切换时正常状态最多丢失3个数据包,查看业务状态,业务顺利迁移到备机后,进行主机升级,如不正常切换主备状态,停止升级,执行回退。升级步骤同上,不做赘述,升级过程预计1小时。

3.4 主备切换,恢复网络

主机升级完成后,命令行运行 cphaprob stat 或 show cluster state 查看主 机状态,在当前主机输入 Cluster XL_admin down,切换主备状态

D	Unique	Address	Assigned	Load	State	Name
l (local)			0% 100%	C	STANDBY ACTIVE	CP-FW1 CP-FW2

切换后观察业务是否正常,如正常升级成功,如不正常切换主备状态。 业务正常后测试一下遗留问题是否依然存在,如存在继续更新 Case

四、回退计划

当升级出现意料之外的计划时,优先保障业务,采取回退措施。 管理服务器回退时,直接联系虚拟机管理员恢复设备快照。 硬件设备回退时,在设备 Web 界面点击 Snapshot Mangement,

Manu and ai	Advanced		Maintenance + Snapshot Management				Conf
lnbou	nd Route Filters	· ·	Snapshot Management				
& Route	Redistribution						
🔒 Routir	ng Options		New Revert Delete Import Export				
🔒 Route	r Discovery		Name Description	Created	Size	Version	State
🔒 Policy	Based Routing		new	03-Feb-2023 13:43:29	6.00G	R80.30	5
🔒 Routir	ng Monitor						_
🖃 🔽 User Mar	nagement						
🤽 Chang	ge My Password						
🙎 Users							
Le Roles			Statistics				
🙎 Passw	ord Policy		Statistics				
authe 🙎	ntication Servers		Creation of an additional image will require 5.792G Amount of space available for images is 32.29G				
🙎 Syster	n Groups						
🖃 🛄 High Ava	ilability						
📿 Advar	nced VRRP		Free Free				
🖃 🎤 Maintena	ance						
LICEUS	- SIGUS						
& Snaps	hot Management						
P Surtar	n Pashun						



升级安装前,安装进程会再次自动执行系统快照,回退执行 revert,可以退回 到升级安装前版本。

	Nevert	Delete	Import	Export	0
Name	Desc	ription			
Blink_R80.30	437 Syste	em image of R8	30.30 (stored or	n Fri Feb 03 15	:47:18 2023,during Blink installation)

五、时间节点表

全部升级需要 3-3.5h 如下为时间节点表。

序号	内容	时长	是否完成	备注
1	管理服务器升级	1h		
2	备机升级	1h		
3	主备切换	1s-2s		
4	业务查看	10min		
5	主机升级	1h		
6	主备切换	1s-2s		
7	业务查看	10min		