## 🔎 某局点WA4320-ACN-SI升级版本提示内存空间不足经验案例

软件升级 **王媛媛** 2017-12-26 发表

某局点反馈AC(型号WX3510H)升级至V7的R5215P01版本以后,出现个别AP(型号WA4320-ACN-S I)注册失败。AP 原版本是出厂很老的版本, Boot7.02。Console登录问题AP 发现提示内存空间不足, 下载版本失败。 查看AP Console 输出打印如下信息 BootWare Validating... Press Ctrl+B to access EXTENDED-BOOTWARE MENU... Loading the main boot and system image files... Loading file flash:/wa4300s-system.bin..... .....Done. Image file flash:/wa4300s-system.bin is invalid! Loading the backup boot and system image files... The image does not exist! Booting image fails! Trying to get the IP address from the DHCP server..... DHCP server& # 39;s IP address is 192.168.100.2 Client& # 39;s assigned address is 192.168.100.100 DNS domain name got from DHCP server is DNS server& #39;s IP address is 211.137.32.178 Default Gateway& # 39;s IP address is 192.168.100.2 This client& # 39;s subnet mask is 255.255.255.0 The length of option 43 is: 0 Change State : Idle to Broadcast Discovery Change State : Broadcast Discovery to Join Change State : Join to JoinAck Change State : JoinCfm to Image Download The space is not enough Failed!

Rebooting..... System is starting... Press Ctrl+D to access BASIC-BOOTWARE MENU Booting Normal Extend BootWare The Extend BootWare is self-decompressing...... Done!

## The space is not enough Failed!

WA4320-ACN-SI这款AP设计的Flash大小是16M。早期这款AP V7的 ipe版本大小约为12MB多。正常 情况下格式化AP 以后可以释放15MB左右的Flash空间。当这款AP 从V5 升级至V7 较老版本,或者出 厂就是较老的V7版本(Boot 7.04)以下时,再升级至V7较新版本(例如R5215P01版本)就会概率 性出现内存空间不足的问题,导致下载版本失败。 Compiled Date : Jul 7 2015 CPU Type : ATHEROS AR9563 CPU L1 Cache : 32KB CPU Clock Speed : 775MHz Memory Type : SDRAM Memory Size : 128MB Memory Speed : 560MHz BootWare Size : 512KB Flash Size:16MB //AP 设计的Flash大小是16MB PCB Version : Ver.B 格式化AP 以后在bootware菜单下查看flash也只有12MB多。 

<1> Boot System	
<2> Enter Serial SubMenu	
<3> Enter Ethernet SubMenu	
<4> File Control	
<5> Restore to Factory Default Configuration	
<6> Skip Current System Configuration	
<7> BootWare Operation Menu	
<8> Skip Authentication for Console Login	
<9> Storage Device Operation	
<0> Reboot	
Ctrl+Z: Access EXTENDED ASSISTANT MENU	
Ctrl+F: Format File System	
Ctrl+C: Display Copyright	
Enter your choice(0-9):	
Warning:All files on flash will be lost! Are you sure	to format? [Y/N]Y
Format success.	
======================================	OOTWARE MENU>=======================
===	
<pre> &lt;1&gt; Boot System</pre>	I
<2> Enter Serial SubMenu	I
<3> Enter Ethernet SubMenu	
<4> File Control	
<5> Restore to Factory Default Configuration	
<6> Skip Current System Configuration	
<pre></pre>	
I<8> Skip Authentication for Console Login	
<9> Storage Device Operation	
<pre>l&lt;0&gt; Beboot</pre>	
	ı 
Ctrl+Z: Access EXTENDED ASSISTANT MENU	
$Ctrl_+C$ : Display Copyright	
Enter your choice $(0, 9)$ : 9	
DEVICE	00N1110L2
- I-1> Display All Available Nonvolatile Storage Dev	
-2> Set The Operating Device	
1<2> Set The Default Boot Device	1
	I 
Enter your choice(0-3): 1	
Display all available nonvolatile storage device(s):	
INO Device Name File System Total Size Availa	able Space
11 flash JFFS2 12674KB 12674KB	
	'
而在AC 上查看B5215P01版本涉及的WA4320-CAN	N-SI的AP的ine文件比较大,已经超过了1.3MB。
<pre>~WX2510H&gt;dir</pre>	
Directory of	
flash:/apimge	
4 -rw- <b>13158400</b> Jan 01 2011 08:00:42 wa43	300s ine
所以即使将AP格式化操作以后所剩Flash空间也口名	12MB多,存在内存不足。下载版木生附
将AP的Boot手动升级到7.04以上解决(因为是概率	性出现,所以涉及的AP数应该不多,可以手动升级
下面是计级AP Boot的操作过程。田士AP 的Flash空间有限,不能再上传ipe文件升级Boot,可以上传b	
tw又仵进行boot升级。btw又仵可以我售后技术人员获取。	
以下Bootware来甲操作下通过btw文件升级Boot的排	熙作指导。
system is starting	
Press Ctrl+D to access BASIC-BOOTWARE MEN	U
Booting Normal Extend BootWare	
The Extend BootWare is self-decompressing	

Done \*\*\*\*\* H3C WA4320-ACN-B BootWare, Version 7.02 Copyright (c) 2004-2017 New H3C Technologies Co., Ltd. Compiled Date : Jun 9 2017 : ATHEROS AR9557 CPU Type CPU L1 Cache : 32KB CPU Clock Speed : 720MHz Memory Type : DDR2 SDRAM Memory Size : 256MB Memory Speed : 560MHz BootWare Size : 512KB Flash Size : 32MB PCB Version : Ver.B BootWare Validating... Press Ctrl+B to access EXTENDED-BOOTWARE MENU ... Password recovery capability is enabled. Note: The current operating device is flash Enter < Storage Device Operation > to select device. === |<1> Boot System |<2> Enter Serial SubMenu |<3> Enter Ethernet SubMenu |<4> File Control |<5> Restore to Factory Default Configuration |<6> Skip Current System Configuration |<7> BootWare Operation Menu |<8> Skip Authentication for Console Login <9> Storage Device Operation |<0> Reboot Ctrl+Z: Access EXTENDED ASSISTANT MENU Ctrl+F: Format File System Ctrl+C: Display Copyright Enter your choice(0-9): 7 Note: the operating device is flash |<1> Backup Full BootWare |<2> Restore Full BootWare |<3> Update BootWare By Serial |<4> Update BootWare By Ethernet I<0> Exit To Main Menu \_\_\_\_\_ Enter your choice(0-4): 4 |<1> Update Full BootWare Т |<2> Update Extended BootWare |<3> Update Basic BootWare |<4> Modify Ethernet Parameter l<0> Exit To Main Menu \_\_\_\_\_ Enter your choice(0-4): 4 == Note: & # 39;.& # 39; = Clear field. & # 39;-& # 39; = Go to previous field. Ctrl+D = Quit.\_\_\_\_\_

Load File Name :apwtu41028467\_v7.02.btw :apwtu43030471 v7.10.btw Target File Name :apwtu41028467\_v7.02.btw :apwtu43030471\_v7.10.btw Server IP Address :192.168.0.1 Local IP Address :192.168.0.2 Subnet Mask :255.255.255.0 Gateway IP Address :0.0.0.0 === |<1> Update Full BootWare |<2> Update Extended BootWare |<3> Update Basic BootWare |<4> Modify Ethernet Parameter |<0> Exit To Main Menu \_\_\_\_\_ Enter your choice(0-4): 2 Loading.....Done. 393216 bytes downloaded! |<1> Update Full BootWare |<2> Update Extended BootWare |<3> Update Basic BootWare <4> Modify Ethernet Parameter |<0> Exit To Main Menu Enter your choice(0-4): 0 Note: the operating device is flash <1> Backup Full BootWare |<2> Restore Full BootWare |<3> Update BootWare By Serial |<4> Update BootWare By Ethernet <0> Exit To Main Menu \_\_\_\_\_ Enter your choice(0-4): 0 === |<1> Boot System |<2> Enter Serial SubMenu |<3> Enter Ethernet SubMenu |<4> File Control |<5> Restore to Factory Default Configuration |<6> Skip Current System Configuration |<7> BootWare Operation Menu |<8> Skip Authentication for Console Login <9> Storage Device Operation <0> Reboot \_\_\_\_\_ \_\_\_\_\_ Ctrl+Z: Access EXTENDED ASSISTANT MENU Ctrl+F: Format File System Ctrl+C: Display Copyright Enter your choice(0-9): 0 System is starting ...

1. 对于AP升级失败的问题,最快的排查方法就是找到这台AP,直接Bonsole登录查看AP从启动到注册时段打印的信息,找到问题点。

2. 对于WA4320-ACN-Sl这款AP由于设计的Flash比较小,升级版本时可能会因为Boot太老概率性地出现内存空间不足的问题。建议如果AP是从V5升级至V7版本时不要选择太老的版本,最好是升级到Boot7.04以上的配套版本。