V7 WX系列无线控制器IRF2环境下版本升级（命令行）

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组网及说明

V7 WX系列无线控制器IRF2环境下版本升级（命令行）

目录

1 配置需求或说明... 2
1.1 适用产品系列... 2
1.2 配置需求及实现的效果... 2
2 组网图... 2
3 IRF配置步骤... 2
3.1 IRF配置... 2
3.2 配置LACP mad检测... 4
3.2.1 配置Switch. 4
3.2.2 配置AC的LACP mad检测... 4
3.2.3 验证配置
4 命令行下版本升级

1 配置需求或说明

1.1 适用产品系列

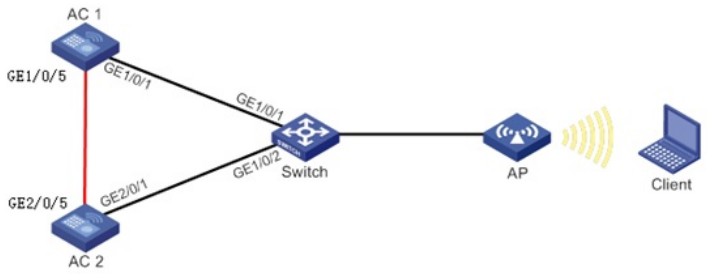
本手册适用于如下产品： V7 WX系列无线控制器产品，包含：WX3500H系列、WX5500E(V7)系列、WX5500H系列、AC插卡(V7)系列、WX3800H系列、WX5800H系列。

1.2 配置需求及实现的效果

AC 1与AC 2通过直连链路建立IRF，IRF与交换机Switch之间建立动态聚合链路，用于LACP MAD检测和业务报文转发。同时进行版本升级，尽量缩短断网时间。

注意：配置IRF2前请先确认所购买的设备是否支持IRF.

2组网图



问题描述

3 IRF配置步骤

3.1 IRF配置

配置主AC的优先级为10

<H3C>system-view

[H3C]irf member 1 priority 10

将需要进行堆叠配置的端口1/0/5 加入IRF端口。物理端口加入IRF端口时需要先关闭端口，添加到IRF端口后再开启端口。

[H3C]interface GigabitEthernet 1/0/5

[H3C- GigabitEthernet 1/0/5]shutdown

[H3C- GigabitEthernet 1/0/5]quit

[H3C]irf-port 1

[H3C-irf-port1]port group interface GigabitEthernet 1/0/5

[H3C-irf-port1]quit

[H3C]interface GigabitEthernet 1/0/5

[H3C- GigabitEthernet 1/0/5]undo shutdown

[H3C- GigabitEthernet 1/0/5]quit

配置完成后激活IRF配置

[H3C]irf-port-configuration active

#进入备设备命令行将备设备成员ID修改为2。将备设备成员ID配置为2，出现是否切换的提示后输入“Y”。

<H3C>system-view

[H3C]irf member 1 renumber 2

Renumbering the member ID may result in configuration change or loss. Continue?[Y/N]:Y
[H3C]quit
#成员ID修改为2后需要重启设备才能生效。输入reboot命令后设备会提示是否保存配置，输入“Y”，后面会出现是否重启设备提示，输入“Y”。
<H3C>reboot
Start to check configuration with next startup configuration file, please wait.....DONE!
Current configuration may be lost after the reboot, save current configuration? [Y/N]:Y
This command will reboot the device. Continue? [Y/N]:Y
#将需要进行堆叠配置的端口2/0/5接口加入IRF端口。重启后设备成员ID变为2，物理端口加入IRF端口时需要先关闭端口，添加到IRF端口后再开启端口。
[H3C]interface GigabitEthernet 2/0/5
[H3C- GigabitEthernet 2/0/5]shutdown
[H3C- GigabitEthernet 2/0/5]quit
[H3C]irf-port 2
[H3C-irf-port2]port group interface GigabitEthernet 2/0/5
[H3C-irf-port2]quit
[H3C]interface GigabitEthernet 2/0/5
[H3C- GigabitEthernet 2/0/5]undo shutdown
[H3C- GigabitEthernet 2/0/5]quit
#保存配置。激活前需要保存IRF全部配置，以免重启后配置丢失。
[H3C]save force
#配置完成后激活IRF配置
使用“irf-port-configuration active”命令激活IRF配置，激活后备AC将重启，重启后加入堆叠组成为主AC的一部分。
[H3C]irf-port-configuration active

#检验配置结果
在命令行输入“display irf”，可以看到主设备成员ID为1，优先级为10。
[H3C]display irf
Member ID Role Priority CPU MAC Description
*+1 Master 10 703d-15f9-7778 ---
2 Standby 1 703d-15f9-7788 ---

The asterisk (*) indicates the master.
The plus sign (+) indicates the device through which you are logged in.
The right angle bracket (>) indicates the device's stack capability is disabled.

Bridge MAC of the IRF: 703d-15f9-7778
Auto upgrade : Enabled
MAC persistence : 6 min
Topo-domain ID : 1
Auto merge : Enabled

3.2 配置LACP mad检测

3.2.1 配置Switch

创建二层聚合接口1，并配置该聚合接口对应的聚合组工作在动态聚合模式下。
<Switch> system-view
[Switch] interface bridge-aggregation 1
[Switch-Bridge-Aggregation1] link-aggregation mode dynamic
[Switch-Bridge-Aggregation1] quit
将端口GigabitEthernet1/0/1加入到聚合组1中。
[Switch] interface gigabitethernet 1/0/1
[Switch-GigabitEthernet1/0/1] port link-aggregation group 1
[Switch-GigabitEthernet1/0/1] quit
将端口GigabitEthernet1/0/2加入到聚合组1中。
[Switch] interface gigabitethernet 1/0/2
[Switch-GigabitEthernet1/0/2] port link-aggregation group 1
[Switch-GigabitEthernet1/0/2] quit
开启聚合流量重定向功能，实现聚合链路上流量的不中断。
该命令的说明:开启全局的聚合流量重定向功能时，如果有连接其它厂商设备的聚合接口，可能影响该聚合组的正常通信。
[Switch] link-aggregation lacp traffic-redirect-notification enable

3.2.2 配置AC的LACP mad检测

创建二层聚合接口1，并配置该聚合接口对应的聚合组工作在动态聚合模式下。

[H3C] interface bridge-aggregation 1
[H3C-Bridge-Aggregation1] link-aggregation mode dynamic
开启LACP MAD检测功能。
[H3C-Bridge-Aggregation1] mad enable
[H3C-Bridge-Aggregation1] quit
开启聚合流量重定向功能，实现聚合链路上流量的不中断。
该命令的说明:开启全局的聚合流量重定向功能时，如果有连接其它厂商设备的聚合接口，可能影响该聚合组的正常通信。
[H3C] link-aggregation lacp traffic-redirect-notification enable
将端口GigabitEthernet1/0/1加入到聚合组1中。
[H3C] interface gigabitethernet 1/0/1
[H3C-GigabitEthernet1/0/1] port link-aggregation group 1
[H3C-GigabitEthernet1/0/1] quit
将端口GigabitEthernet2/0/1加入到聚合组1中。
[H3C] interface gigabitethernet 2/0/1
[H3C-GigabitEthernet2/0/1] port link-aggregation group 1
[H3C-GigabitEthernet2/0/1] quit

3.2.3 验证配置

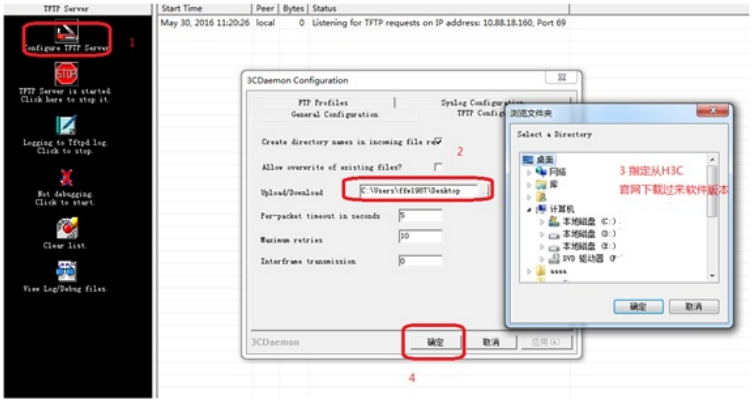
[H3C]dis link-aggregation summary
Aggregation Interface Type:
BAGG -- Bridge-Aggregation, BLAGG -- Blade-Aggregation, RAGG -- Route-Aggregation, SCH-B -- S channel-Bundle
Aggregation Mode: S -- Static, D -- Dynamic
Loadsharing Type: Shar -- Loadsharing, NonS -- Non-Loadsharing
Actor System ID: 0x8000, 703d-15f9-7788

AGG Interface	AGG Mode	Partner ID	Selected Ports	Unselected Ports	Individual Ports	Share Type
BAGG1	D	0x8000, 5cdd-704d-1d00	2	0	0	Shar

4 命令行下版本升级

操作风险提示：设备有风险，操作不当或者意外断电会导致设备故障，操作需谨慎。升级完成后AP需要重新获取新版本上线，期间可能涉及到一定的窗口时间，请预留充足的时间。
命令行升级需在PC上搭建TFTP Server（推荐用户使用3CDaemon搭建TFTP服务器），注意需要关闭终端的防火墙和无线网卡。
将软件版本下载到设备FLASH内，然后通过命令行加载主机软件版本，加载时输入的文件名一定要一致，建议复制黏贴，然后升级过程中避免断电重启操作。
具体操作如下：
1. 从新华三的官网下载对应设备型号的版本，下载到电脑后，建议修改文件名，以设备名称+版本号为版本名称，利于后期维护。
版本下载位置在新华三官网（www.h3c.com,cn）产品支持与服务>文档与软件>软件下载>无线。

2. 以WX3510H为例子， 电脑网卡设置为：192.168.0.1/255.255.255.0 ，如下例子打开TFTP服务器，把软件版本WX3510H_WX3510HF-CMW710-R5430P03.ipe放到电脑桌面上，TFTP服务器目录指向电脑桌面，然后点击确定。



3. 如电脑和设备已经网络可达，此步可忽略；
创建设备的ip地址，地址为192.168.0.100 255.255.255.0，和电脑同一个网段，保证电脑和设备网络可达。以下标黑部分为设备自动打印部分，标红加粗的命令是需要手动输入。
<H3C> **system**

[H3C] **interface vlan1**
[H3C-Vlan-interface1] **ip address 192.168.0.100 255.255.255.0**
[H3C-Vlan-interface1] **quit**

4. 通过TFTP上传WX3510H_WX3510HF-CMW710-R5430P03.ipe到WX3510H上，192.168.0.1是电脑的ip。
<H3C> tftp 192.168.0.1 get WX3510H_WX3510HF-CMW710-R5430P03.ipe
File will be transferred in binary mode.
Downloading file from remote tftp server, please wait.....
备注：如果提示FLASH空间不足无法放下新版本请将老版本删除，删除后请勿重启，否则设备已无系统，只能通过bootrom升级。
<H3C>delete /unreserved boot.bin
<H3C>delete /unreserved system.bin

5.将版本文件复制一份给备设备
<H3C>copy slot1#cfa0:/WX3510H_WX3510HF-CMW710-R5430P03.ipe slot2#cfa0:/WX3510H_WX3510HF-CMW710-R5430P03.ipe
Copy slot1#cfa0:/WX3510H_WX3510HF-CMW710-R5430P03.ipe to cfa0:/WX3510H_WX3510HF-CMW710-R5430P03.ipe? [Y/N]:y
Copying file slot1#cfa0:/WX3510H_WX3510HF-CMW710-R5430P03.ipe to cfa0:/WX3510H_WX3510HF-CMW710-
R5430P03.ipe.....
.....
Done

6. 将新的版本文件指定成为下次启动的主启动文件
<H3C> **boot-loader file cfa0:/WX3510H_WX3510HF-CMW710-R5430P03.ipe all main**
This command will set the main startup software images. Please do not reboot any MPU during the upgrade. Continue? [Y/N]:y
Add images to slot 1.
Decompressing file boot.bin to
cfa0:/boot.bin.....
.....
.....Done.
Decompressing file system.bin to cfa0:/system.bin.....Done.
Verifying the file cfa0:/boot.bin on slot
1.....
.....Done.
Verifying the file cfa0:/system.bin on slot 1.....Done.
The images that have passed all examinations will be used as the main startup software images at the next reboot on slot 1
Verifying the file cfa0:/boot.bin on slot
2.....
.....Done.
Verifying the file cfa0:/system.bin on slot 2.....Done.
The images that have passed all examinations will be used as the main startup software images at the next reboot on slot 2.
Decompression completed..

7. 查看下次主启动文件
<H3C>dis boot-loader
Software images on slot 1:
Current software images:
  Image Version
  cfa0:/boot.bin Release 5427
  cfa0:/system.bin Release 5427
Main startup software images:
  Image Version
  cfa0:/boot.bin Release 5430P03
  cfa0:/system.bin Release 5430P03
Backup startup software images:
  Image Version
  cfa0:/lvzhou-backup-boot.bin --
  cfa0:/lvzhou-backup-system.bin --

```
Software images on slot 2:
Current software images:
  Image                                   Version
  cfa0:/boot.bin                            Release 5427
  cfa0:/system.bin                            Release 5427
Main startup software images:
  Image                                   Version
  cfa0:/boot.bin                            Release 5430P03
  cfa0:/system.bin                            Release 5430P03
Backup startup software images:
  Image                                   Version
  cfa0:/boot1.bin                            --
  cfa0:/system.bin                            --
```

8. 关闭mad检测

```
[H3C] interface bridge-aggregation 1
[H3C-Bridge-Aggregation1] undo mad enable
[H3C-Bridge-Aggregation1]quit
```

9. 关掉主设备业务口，保存配置。重启主设备，在主设备启动完成之前拔掉堆叠线

```
[H3C]interface GigabitEthernet 1/0/1
[H3C- GigabitEthernet 1/0/1]shutdown
[H3C- GigabitEthernet 1/0/1]quit
[H3C]save force
<H3C>reboot slot 1
 This command will reboot the specified board, Continue? [Y/N]:y
```

10. 主设备重启完成后，先关闭备业务口，再打开主业务口，间隔越短，业务中断时间越短：说明:提前复制好脚本

```
<H3C>sys
[H3C]interface GigabitEthernet 2/0/1
[H3C- GigabitEthernet 2/0/1]shutdown
[H3C- GigabitEthernet 2/0/1]quit
<H3C>sys
[H3C]interface GigabitEthernet 1/0/1
[H3C- GigabitEthernet 1/0/1]undo shutdown
[H3C- GigabitEthernet 1/0/1]quit
```

11. 确认业务正常运行后，重启备设备，在备设备重启完成之前插堆叠线

```
<H3C>reboot
 Start to check configuration with next startup configuration file, please wait.........DONE!
 This command will reboot the device. Current configuration will be lost, save current configuration? [
Y/N]:n
 This command will reboot the device. Continue? [Y/N]:y
```

12. 备设备重启完成后，查看irf状态

```
[H3C]display  irf
Member ID    Role    Priority  CPU MAC         Description
  *+1        Master  10        703d-15f9-7778  ---
    2        Standby 1         703d-15f9-7788  ---
-------------------------------------------------
The asterisk (*) indicates the master.
The plus sign (+) indicates the device through which you are logged in.
The right angle bracket (>) indicates the device's stack capability is disabled.

Bridge MAC of the IRF: 703d-15f9-7778
Auto upgrade         : Enabled
MAC persistence      : 6 min
Topo-domain ID       : 1
Auto merge           : Enabled
```

查看当前版本状态

```
<H3C>dis version
H3C Comware Software, Version 7.1.064, Release 5430P03
```

```
Copyright (c) 2004-2020 New H3C Technologies Co., Ltd. All rights reserved.
H3C WX3510H uptime is 0 weeks, 0 days, 0 hours, 40 minutes
Last reboot reason : User soft reboot

Boot image: cfa0:/boot.bin
Boot image version: 7.1.064, Release 5430P03
  Compiled May 09 2020 16:00:00
System image: cfa0:/system.bin
System image version: 7.1.064, Release 5430P03
  Compiled May 09 2020 16:00:00

Slot 1
Uptime is 0 week, 0 day, 0 hour, 38 minutes
with 1 1000MHz Multi-core Processor
4064M bytes DDR3
16M bytes NorFlash Memory
4002M bytes CFCard Memory

Hardware Version is Ver.A
CPLD Version is 004
Basic Bootrom Version is 5.07
Extend Bootrom Version is 5.15
[Subslot 0]WX3510H Hardware Version is Ver.A

Slot 2
Uptime is 0 week, 0 day, 0 hour, 40 minutes
with 1 1000MHz Multi-core Processor
4064M bytes DDR3
16M bytes NorFlash Memory
4002M bytes CFCard Memory

Hardware Version is Ver.A
CPLD Version is 004
Basic Bootrom Version is 5.07
Extend Bootrom Version is 5.15
[Subslot 0]WX3510H Hardware Version is Ver.A
```

13. 恢复mad状态

```
[H3C] interface bridge-aggregation 1
[H3C-Bridge-Aggregation1] mad enable
[H3C-Bridge-Aggregation1]quit
```

至此，升级完成。

过程分析

无

解决方法

无