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简介

本文描述动态地址解析服务(ARP)条目过期。

在各自ARP超时超时后，为什么是一些动态ARP条目存在ARP表里？

在Cisco IOS软件方面， ARP缓存超时在接口配置模式设置为四个小时(240分钟)默认情况下，但是可以被修改。

输入**show interfaces命令**为了显示ARP缓存超时：

```
ASR1k#show interfaces gi0/0/2 | include ARP
Encapsulation ARPA, loopback not set
ARP type: ARPA, ARP Timeout 04:00:00
```

在其超时超时以后， ARP条目在ARP缓存实际上存储。在本例中， IP地址10.2.2.2的动态ARP条目是存在ARP缓存253分钟：

```
ASR1k#show arp
Protocol Address Age (min) Hardware Addr Type Interface
Internet 10.2.2.1 - 30e4.dbb7.7e02 ARPA GigabitEthernet0/0/2
Internet 10.2.2.2 253   0004.c01d.7c1a  ARPA   GigabitEthernet0/0/2
```

当创建时，额外时间是抖动被添加到每动态ARP条目。随机的抖动被添加到ARP缓存超时为了避免ARP条目的同步有效期，也许触发ARP风暴。抖动应该是0秒和30分钟范围的一个随机数，与30分钟的最大抖动。

此步骤描述如何确认抖动随机：

1. 输入**detail命令show arp的***IP地址*为了检查ARP条目详细信息：

```
ASR1k#show arp 10.2.2.2 detail
ARP entry for 10.2.2.2, link type IP.
Dynamic, via GigabitEthernet0/0/2, last updated 253 minutes ago.
Encap type is ARPA, hardware address is 0004.c01d.7c1a, 6 bytes long.
ARP subblocks:
* Dynamic ARP Subblock
Entry will be refreshed in 9 minutes and 4 seconds.
It has 2 chances to be refreshed before it is purged.
Entry is complete.
* ARP HA
ARP entry is a new entry and has not been synchronized to standby RP.
* IP ARP Adjacency
```

```
Adjacency (for 10.2.2.2 on GigabitEthernet0/0/2) was installed.
Connection ID: 0
```

2. 清除ARP条目，并且再获取从**detail命令show arp的*IP地址的*输出**：

```
ASR1k#clear arp 10.2.2.2
ASR1k#show arp 10.2.2.2 detail
ARP entry for 10.2.2.2, link type IP.
Dynamic, via GigabitEthernet0/0/2, last updated 0 minute ago.
Encap type is ARPA, hardware address is 0004.c01d.7c1a, 6 bytes long.
ARP subblocks:
* Dynamic ARP Subblock
Entry will be refreshed in 261 minutes and 42 seconds.
It has 2 chances to be refreshed before it is purged.
Entry is complete.
```

注意计时器重置。

3. 重复步骤2，并且注意结果不同的：

```
ASR1k #clear arp 10.2.2.2
ASR1k #show arp 10.2.2.2 det
ARP entry for 10.2.2.2, link type IP.
Dynamic, via GigabitEthernet0/0/2, last updated 0 minute ago.
Encap type is ARPA, hardware address is 0004.c01d.7c1a, 6 bytes long.
ARP subblocks:
* Dynamic ARP Subblock
Entry will be refreshed in 263 minutes and 58 seconds.
It has 2 chances to be refreshed before it is purged.
Entry is complete.
```

相关信息

- **show arp命令在寻址的Cisco IOS IP服务命令参考**
- **技术支持和文档 - Cisco Systems**