HiveOS\_Capwap ping\_TestCase

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Author | Description |
| 0.1 | 03/30/2010 | Yun Feng | Initial version |
| 0.2 | 2010-04-07 | Zhao haihui | Add two case for count function |
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Glossary and Abbreviations

# Introduction

Because HiveAP and HM often placed in different network area, so if the HiveAP cannot connect with HM, we should have a tool to diagnose the network issue for CAPWAP protocol.

The normal ping only can diagnose the network connection status between HiveAP and HM. It cannot diagnose the CAPWAP connection status between HiveAP and HM. We should have another tool only for CAPWAP protocol to check the basic CAPWAP connection status between HiveAP and HM.

Function Spec: <http://saturn.aerohive.com/view.php?fDocumentId=2806>

Unit Test Case: <http://saturn.aerohive.com/view.php?fDocumentId=2838>

CLI Review Form: <http://saturn.aerohive.com/view.php?fDocumentId=2815>

# Test Objectives

## Check default capwap ping

## Check DNS parse of capwap ping

## Check port change of capwap ping

## Check size change of capwap ping

## Check timer change of capwap ping

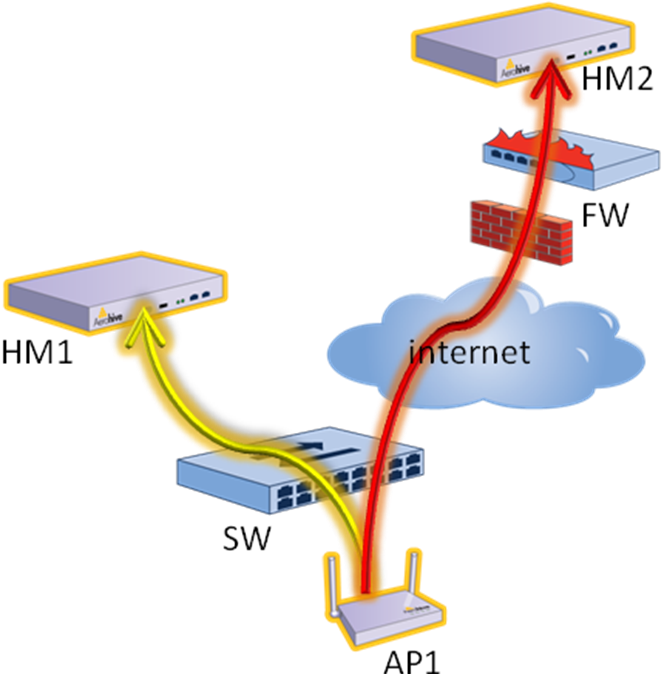
## Check flood of capwap ping

# Test Acceptance Criterion from Development

* Approved – Functional Specifications
* Approved – Unit Test Plans

# Product Pass Criterion

# Test Bed/Topo Design



# TestCase

## Key Scenarios

## Function Test Case

### Check default capwap ping

#### Capwapping\_Function\_1

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Capwapping\_Function\_1 | | |
| Priority | Accept | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | Check default capwap ping functional | | |
| Pre-condition | Reset config  HM2（10.155.20.68） can be reachable  AP connected with HM1 | | |
| Test procedure | 1. Execute CLI “capwap ping 10.155.20.68” 2. Execute CLI “show running configure | inc capwap” | | |
| Expect result | 1. Check the destination server IP、Count、size、timeout and port.   AH-0c0e00#capwap ping 10.155.20.68  CAPWAP ping parameters:  Destination server: 10.155.20.68 (10.155.20.68)  Destination port: 12222  Count: 5  Size: 56(82) bytes  Timeout: 5 seconds  --------------------------------------------------  CAPWAP ping result:  82 bytes from 10.155.20.68 udp port 12222: seq=1 time=2.693 ms  82 bytes from 10.155.20.68 udp port 12222: seq=2 time=2.846 ms  82 bytes from 10.155.20.68 udp port 12222: seq=3 time=4.23 ms  82 bytes from 10.155.20.68 udp port 12222: seq=4 time=2.814 ms  82 bytes from 10.155.20.68 udp port 12222: seq=5 time=3.306 ms  ------- 10.155.20.68 CAPWAP ping statistics -------  5 packets transmitted, 5 received, 0.00% packet loss, time 5017.602ms  rtt min/avg/max = 2.693/3.136/4.23 ms   1. There is no corresponding CLI on running configure. | | |
| Test result |  | | |
| Comment |  | | |

### Check DNS parse of capwap ping

#### Capwapping\_Function\_2

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Capwapping\_Function\_2 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | Check DNS parse of capwap ping functional  HM can be reachabled | | |
| Pre-condition | Reset config  Add one item to parse [www.joke11111111111111111111.com](http://www.joke11111111111111111111.com) to 10.155.20.68 on DNS server  HM2（10.155.20.68） can be reachable  AP connected with HM1 | | |
| Test procedure | 1. Execute CLI “capwap ping [www.joke11111111111111111111.com](http://www.joke.com)” 2. Execute CLI “show running configure | inc capwap” | | |
| Expect result | 1. Check the destination server IP、Count、size、timeout and port. 2. There is no corresponding CLI on running configure. | | |
| Test result |  | | |
| Comment |  | | |

### Check port change of capwap ping

#### Capwapping\_Function\_ 3

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Capwapping\_Function\_3 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | Check port change of capwap ping functional | | |
| Pre-condition | Reset config  Modify the port to 1 on Hivemanager  HM2（10.155.20.68） can be reachable  AP connected with HM1 | | |
| Test procedure | 1. Execute CLI “capwap ping 10.155.20.68 port 1024” 2. Execute CLI “show running configure | inc capwap” | | |
| Expect result | 1. Check the destination server IP、Count、size、timeout and port. 2. There is no corresponding CLI on running configure. | | |
| Test result |  | | |
| Comment | Now port range is 1-65535 in HM  Only support UDP port | | |

#### Capwapping\_Function\_4

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Capwapping\_Function\_4 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | Check port change of capwap ping functional | | |
| Pre-condition | Reset config  Modify the port to 65535 on Hivemanager  HM2（10.155.20.68） can be reachable  AP connected with HM1 | | |
| Test procedure | 1. Execute CLI “capwap ping 10.155.20.68 port 65535” 2. Execute CLI “show running configure | inc capwap” | | |
| Expect result | 1. Check the destination server IP、Count、size、timeout and port. 2. There is no corresponding CLI on running configure. | | |
| Test result |  | | |
| Comment |  | | |

### Check size change of capwap ping

#### Capwapping\_Function\_5

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Capwapping\_Function\_5 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | Check size change of capwap ping functional | | |
| Pre-condition | Reset config  HM2（10.155.20.68） can be reachable  AP connected with HM1 | | |
| Test procedure | 1. Execute CLI “capwap ping 10.155.20.68 size 1” 2. Execute CLI “show running configure | inc capwap” | | |
| Expect result | 1. Check the destination server IP、Count、size、timeout and port. 2. There is no corresponding CLI on running configure. | | |
| Test result |  | | |
| Comment |  | | |

#### Capwapping\_Function\_6

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Capwapping\_Function\_6 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | Check size change of capwap ping functional | | |
| Pre-condition | Reset config  HM2（10.155.20.68） can be reachable  AP connected with HM1 | | |
| Test procedure | 1. Execute CLI “capwap ping 10.155.20.68 size 1300” 2. Execute CLI “show running configure | inc capwap” | | |
| Expect result | 1. Check the destination server IP、Count、size、timeout and port. 2. There is no corresponding CLI on running configure. | | |
| Test result |  | | |
| Comment |  | | |

### Check timer change of capwap ping

#### Capwapping\_Function\_7

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Capwapping\_Function\_7 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | Check timer change of capwap ping functional | | |
| Pre-condition | Reset config  HM2（10.155.20.68） can be reachable  AP connected with HM1 | | |
| Test procedure | 1. Execute CLI “capwap ping 10.155.20.68 timeout 1” 2. Execute CLI “show running configure | inc capwap” | | |
| Expect result | 1. Check the destination server IP、Count、size、timeout and port. 2. There is no corresponding CLI on running configure. | | |
| Test result |  | | |
| Comment |  | | |

#### Capwapping\_Function\_8

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Capwapping\_Function\_8 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | Check timer change of capwap ping functional | | |
| Pre-condition | Reset config  HM2（10.155.20.68） can be reachable  AP connected with HM1 | | |
| Test procedure | 1. Execute CLI “capwap ping 10.155.20.68 timeout 60” 2. Execute CLI “show running configure | inc capwap” | | |
| Expect result | 1. Check the destination server IP、Count、size、timeout and port. 2. There is no corresponding CLI on running configure. | | |
| Test result |  | | |
| Comment |  | | |

### Check count of capwap ping

#### Capwapping\_Function\_9

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Capwapping\_Function\_9 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | Check count of capwap ping functional | | |
| Pre-condition | Reset config  HM2（10.155.20.68） can be reachable  AP connected with HM1 | | |
| Test procedure | 1. Execute CLI “capwap ping 10.155.20.68 count 1” 2. Execute CLI “show running configure | inc capwap” | | |
| Expect result | 1. Check the destination server IP、Count、size、timeout and port and packet number   AH-03f280#capwap ping 192.168.11.99 count 1  CAPWAP ping parameters:  Destination server: 192.168.11.99 (192.168.11.99)  Destination port: 12222  Count: 1  Size: 56(82) bytes  Timeout: 5 seconds  --------------------------------------------------  CAPWAP ping result:  82 bytes from 192.168.11.99 udp port 12222: seq=1 time=1.497 ms  ------- 192.168.11.99 CAPWAP ping statistics -------  1 packets transmitted, 1 received, 0.00% packet loss, time 1002.949ms  rtt min/avg/max = 1.497/1.497/1.497 ms   1. There is no corresponding CLI on running configure. | | |
| Test result |  | | |
| Comment |  | | |

#### Capwapping\_Function\_10

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Capwapping\_Function\_10 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | Check count of capwap ping functional | | |
| Pre-condition | Reset config  HM2（10.155.20.68） can be reachable  AP connected with HM1 | | |
| Test procedure | 1. Execute CLI “capwap ping 10.155.20.68 count 65535” 2. Execute CLI “show running configure | inc capwap” | | |
| Expect result | 1. Check the destination server IP、Count、size、timeout and port and packet number 2. There is no corresponding CLI on running configure. | | |
| Test result |  | | |
| Comment |  | | |

### Check flood of capwap ping

#### Capwapping\_Function\_11

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Capwapping\_Function\_11 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | Check flood capwap ping functional | | |
| Pre-condition | Reset config  HM2（10.155.20.68） can be reachable  AP connected with HM1 | | |
| Test procedure | 1. Execute CLI “capwap ping 10.155.20.68 flood 1” 2. Execute CLI “show running configure | inc capwap” | | |
| Expect result | 1. Check the destination server IP、Count、size、timeout and port and packet number   AH-0c0e00#capwap ping 10.155.20.68 flood 1  CAPWAP ping parameters:  Destination server: 10.155.20.68 (10.155.20.68)  Destination port: 12222  Count: 1  Size: 56(82) bytes  Timeout: 5 seconds  --------------------------------------------------  CAPWAP ping result:  100 packets transmitted, 100 received from 10.155.20.68 udp port 12222: seq=1 time=2.137 ms,  ------- 10.155.20.68 CAPWAP ping statistics -------  100 packets transmitted, 100 received, 0.00% packet loss, time 65.782ms  rtt min/avg/max = 2.137/2.137/2.137 ms   1. There is no corresponding CLI on running configure. | | |
| Test result |  | | |
| Comment |  | | |

#### Capwapping\_Function\_12

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Capwapping\_Function\_12 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | Check maximum flood capwap ping functional | | |
| Pre-condition | Reset config  HM2（10.155.20.68） can be reachable  AP connected with HM1 | | |
| Test procedure | 1. Execute CLI “capwap ping 10.155.20.68 flood 65535” 2. Execute CLI “show running configure | inc capwap” | | |
| Expect result | 1. Check the destination server IP、Count、size、timeout and port and packet number 2. There is no corresponding CLI on running configure. | | |
| Test result |  | | |
| Comment |  | | |

### Check failed of capwap ping

#### Capwapping\_Function\_13

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Capwapping\_Function\_13 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | Check failed flood capwap ping functional | | |
| Pre-condition | Reset config  HM2（10.155.20.68） can’t be reachable  AP connected with HM1 | | |
| Test procedure | 1. Execute CLI “capwap ping 10.155.20.69 flood 65535” 2. Execute CLI “show running configure | inc capwap” | | |
| Expect result | 1. Check AP get failed result. and AP has not abnormal issue 2. There is no corresponding CLI on running configure. | | |
| Test result |  | | |
| Comment |  | | |

#### Capwapping\_Function\_14

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Capwapping\_Function\_14 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | Check failed capwap ping functional | | |
| Pre-condition | Reset config  HM2（10.155.20.68） can be reachable  AP connected with HM1 | | |
| Test procedure | 1. Execute CLI “capwap ping 10.155.20.69” 2. Execute CLI “show running configure | inc capwap” | | |
| Expect result | 1. Check AP get failed result 2. There is no corresponding CLI on running configure. | | |
| Test result |  | | |
| Comment |  | | |

### Check capwap broadcast/multi-cast result

#### Capwapping\_Function\_15

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Capwapping\_Function\_15 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | Check capwap broadcast result | | |
| Pre-condition | Reset config  HM2（10.155.20.68） can be reachable  AP connected with HM1 | | |
| Test procedure | 1. Execute CLI “capwap ping 255.255.255.255” 2. Execute CLI “show running configure | inc capwap” | | |
| Expect result | 1. Check AP result 2. There is no corresponding CLI on running configure. | | |
| Test result |  | | |
| Comment |  | | |

#### Capwapping\_Function\_16

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Capwapping\_Function\_16 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | Check capwap multi-cast result | | |
| Pre-condition | Reset config  HM2（10.155.20.68） can be reachable  AP connected with HM1 | | |
| Test procedure | 1. Execute CLI “capwap ping 255.255.255.0” 2. Execute CLI “show running configure | inc capwap” | | |
| Expect result | 1. Check AP result 2. There is no corresponding CLI on running configure. | | |
| Test result |  | | |
| Comment |  | | |

## Stress Test Case

## Duration Test Case

## Performance Test Case

## Scalability Test Case

## Compatibility Test Case

## CLI Management (Automation Status: Yes/No)

<Just list all cli that this feature has one by one>

< memory leak case for these CLI.Normally, the leak is happened when we do some commands repeatedly.  Like create an object, then delete that object, it should release all the memory it allocated. But this is not true for all the cases. If you create/delete an object several times(but how many times?) and the memory just going down and never recovered, it maybe a memory leak(again, how can we decide it is really a memory leak?).>

## GUI Management-HiveManager

<List HM test case or test log>

## GUI Management-HiveUI

<List HiveUI test case or test log>