**Aerohive Inter-ssid-flood Test Plan & Test Case**

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Author | Description |
| **0.1** | **9/15/2009** | **Xin Sheng** | **Initial version** |
| **0.2** | **9/18/2009** | **Xin Sheng** | **Add case 7.4** |
| **0.3** | **7/31/2012** | **Wei Cai** | **Modify priority1.3&2.4** |
|  |  |  |  |

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# 1. Aerohive solution

Please refer to document prevent flood among ssids.doc

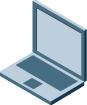
# 2. Introduction

This feature is required by some customers, They want the users under different ssids don’t receive the multicast/broadcast packets each other.

The purpose of testing is confirming that ap’s processing accords with the design in different conditions.

# 3. Test Topologies

Topology 1

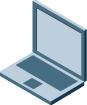


**Station1**



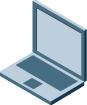
SW

**AP1**



**Station2**

Topology 2



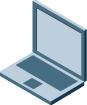
**Station1**



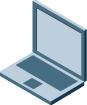
SW

**AP1**

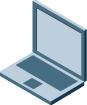
**PC**



**Station2**



Topology 3



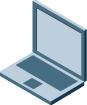
**Station1**



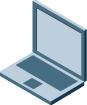
SW

**AP1（MP）**

**PC**



**Station2**



**AP2（Portal）**

# 4. Test Strategies

* **Same wifi port**
* **Assume ethx is backhaul, laptops link to the same wifi port, test the function while vlan and ssid attributes change**
* **Different wifi port**
* **Assume ethx is backhaul, laptops link to different wifi port, test the function while vlan and ssid attributes change**
* **Ethx access mode**
* **Ethx is access, test the function in one eth port, two eth ports and virtual ports ( red0, agg0 )**

# 5. Software Tools Requirements

# 6 Hardware Requirements

* **Laptops**
* **2 APs**
* **Server, pc**

# 7. TestCase

## 7.1 Same wifi port

* Case ID Inter-ssid-flood\_fun\_1

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_1.1 | Priority | Accept |
| Topology to use | Laptop1 ------ AP1 ------ Laptop2 | | |
| Description | Laptops link to the same wifi port and vlan, in different ssid | | |
| Pre-condition | -Laptops has been associated with AP1 and assigned an ip address | | |
| Test procedure | 1. Laptops link to different ssid but the same wifi port and vlan on AP1 2. Disable Inter-ssid-flood on AP1:   “no forwarding-engine inter-ssid-flood enable”   1. Laptop1 sends broadcast or multicast packet 2. Check the packets’ process on AP1 3. Enable Inter-ssid-flood on AP1:   “forwarding-engine inter-ssid-flood enable”   1. Repeat step 3-4 | | |
| Expect result | - The packets should not be flooded to wifi port which links to Laptop2 on step 4  - The packets should be flooded to wifi port which links to Laptop2 on step 6 | | |
| Test result |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_1.2 | Priority | Accept |
| Topology to use | Laptop1 ------ AP1 ------ Laptop2 | | |
| Description | Laptops link to the same wifi port, in different ssid and vlan | | |
| Pre-condition | -Laptops has been associated with AP1 and assigned an ip address | | |
| Test procedure | 1. Laptops link to different ssid and vlan but the same wifi port on AP1 2. Disable Inter-ssid-flood on AP1:   “no forwarding-engine inter-ssid-flood enable”   1. Laptop1 sends broadcast or multicast packet 2. Check the packets’ process on AP1 3. Enable Inter-ssid-flood on AP1:   “forwarding-engine inter-ssid-flood enable”   1. Repeat step 3-4 | | |
| Expect result | - The packets should not be flooded to wifi port which links to Laptop2 on step 4  - The packets should be flooded to wifi port which links to Laptop2 , but dropped by driver on step 6 | | |
| Test result |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_1.3 | Priority | Middle |
| Topology to use | Laptop1 ------ AP1 ------ Laptop2 | | |
| Description | Laptops link to the same wifi port and ssid,different vlan | | |
| Pre-condition | -Laptops has been associated with AP1 and assigned an ip address | | |
| Test procedure | 1. Laptops link to different vlan but the same wifi and ssid port on AP1 2. Disable Inter-ssid-flood on AP1:   “no forwarding-engine inter-ssid-flood enable”   1. Laptop1 sends broadcast or multicast packet 2. Check the packets’ process on AP1 3. Enable Inter-ssid-flood on AP1:   “forwarding-engine inter-ssid-flood enable”   1. Repeat step 3-4 | | |
| Expect result | - The packets should be flooded to wifi port which links to Laptop2, but dropped by driver on step 4  - The packets should be flooded to wifi port which links to Laptop2, but dropped by driver on step 6 | | |
| Test result |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_1.4 | Priority | High |
| Topology to use | Laptop1 ------ AP1 ------ Laptop2 | | |
| Description | Laptops link to the same wifi port, ssid and vlan | | |
| Pre-condition | -Laptops has been associated with AP1 and assigned an ip address | | |
| Test procedure | 1. Laptops link to the same wifi, vlan and ssid port on AP1 2. Disable Inter-ssid-flood on AP1:   “no forwarding-engine inter-ssid-flood enable”   1. Laptop1 sends broadcast or multicast packet 2. Check the packets’ process on AP1 3. Enable Inter-ssid-flood on AP1:   “forwarding-engine inter-ssid-flood enable”   1. Repeat step 3-4 | | |
| Expect result | - The packets should be flooded to wifi port which links to Laptop2 on step 4  - The packets should be flooded to wifi port which links to Laptop2 on step 6 | | |
| Test result |  | | |

## 7.2 Different wifi port

* Case ID Inter-ssid-flood\_fun\_2

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_2.1 | Priority | Accept |
| Topology to use | Laptop1 ------ AP1 ------ Laptop2 | | |
| Description | Laptops link to the different wifi port and ssid, but the same vlan | | |
| Pre-condition | -Laptops has been associated with AP1 and assigned an ip address | | |
| Test procedure | 1. Laptops link to different wifi port and ssid but the same vlan on AP1 2. Disable Inter-ssid-flood on AP1:   “no forwarding-engine inter-ssid-flood enable”   1. Laptop1 sends broadcast or multicast packet 2. Check the packets’ process on AP1 3. Enable Inter-ssid-flood on AP1:   “forwarding-engine inter-ssid-flood enable”   1. Repeat step 3-4 | | |
| Expect result | - The packets should not be flooded to wifi port which links to Laptop2 on step 4  - The packets should be flooded to wifi port which links to Laptop2 on step 6 | | |
| Test result |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_2.2 | Priority | High |
| Topology to use | Laptop1 ------ AP1 ------ Laptop2 | | |
| Description | Laptops link to the different wifi port, ssid and vlan | | |
| Pre-condition | -Laptops has been associated with AP1 and assigned an ip address | | |
| Test procedure | 1. Laptops link to different wifi port, ssid and vlan on AP1 2. Disable Inter-ssid-flood on AP1:   “no forwarding-engine inter-ssid-flood enable”   1. Laptop1 sends broadcast or multicast packet 2. Check the packets’ process on AP1 3. Enable Inter-ssid-flood on AP1:   “forwarding-engine inter-ssid-flood enable”   1. Repeat step 3-4 | | |
| Expect result | - The packets should not be flooded to wifi port which links to Laptop2 on step 4  - The packets should be flooded to wifi port which links to Laptop2, but dropped by driver on step 6 | | |
| Test result |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_2.3 | Priority | High |
| Topology to use | Laptop1 ------ AP1 ------ Laptop2 | | |
| Description | Laptops link to the different wifi port, but the same ssid and vlan | | |
| Pre-condition | -Laptops has been associated with AP1 and assigned an ip address | | |
| Test procedure | 1. Laptops link to different wifi port, the same ssid and vlan on AP1 2. Disable Inter-ssid-flood on AP1:   “no forwarding-engine inter-ssid-flood enable”   1. Laptop1 sends broadcast or multicast packet 2. Check the packets’ process on AP1 3. Enable Inter-ssid-flood on AP1:   “forwarding-engine inter-ssid-flood enable”   1. Repeat step 3-4 | | |
| Expect result | - The packets should be flooded to wifi port which links to Laptop2 on step 4  - The packets should be flooded to wifi port which links to Laptop2 on step 6 | | |
| Test result |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_2.4 | Priority | Middle |
| Topology to use | Laptop1 ------ AP1 ------ Laptop2 | | |
| Description | Laptops link to the different wifi port and vlan, but the same ssid | | |
| Pre-condition | -Laptops has been associated with AP1 and assigned an ip address | | |
| Test procedure | 1. Laptops link to different wifi port and vlan, the same ssid on AP1 2. Disable Inter-ssid-flood on AP1:   “no forwarding-engine inter-ssid-flood enable”   1. Laptop1 sends broadcast or multicast packet 2. Check the packets’ process on AP1 3. Enable Inter-ssid-flood on AP1:   “forwarding-engine inter-ssid-flood enable”   1. Repeat step 3-4 | | |
| Expect result | - The packets should be flooded to wifi port which links to Laptop2, but dropped by driver on step 4  - The packets should be flooded to wifi port which links to Laptop2, but dropped by driver on step 6 | | |
| Test result |  | | |

## 7.3 Ethx access mode

* Case ID Inter-ssid-flood\_fun\_3

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_3.1 | Priority | Middle |
| Topology to use | PC++++++(ethx) AP1(wifix) ------AP2+++++SW  |  Laptop | | |
| Description | One eth access mode on mp. | | |
| Pre-condition | -ethx is access mode  -Laptop has been associated with AP1 and assigned an ip address | | |
| Test procedure | 1. PC and Laptop link to AP1 2. Disable Inter-ssid-flood on AP1:   “no forwarding-engine inter-ssid-flood enable”   1. Laptop sends broadcast or multicast packet 2. Check the packets’ process on AP1 3. PC sends broadcast or multicast packet 4. Check the packets’ process on AP1 5. Enable Inter-ssid-flood on AP1:   “forwarding-engine inter-ssid-flood enable”   1. Repeat step 3-6 | | |
| Expect result | - The packets should not be flooded to ethx on step 4  - The packets should not be flooded to wifi port which links to Laptop on step 6  - The packets should be flooded to ethx or wifi port which links to Laptop on step 8 | | |
| Test result |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_3.2 | Priority | Middle |
| Topology to use | PC++++++(eth0) AP1(eth1) +++++SW  |  Laptop | | |
| Description | One eth access mode on portal. | | |
| Pre-condition | -eth0 is access mode, eth1 is backhaul mode  -Laptop has been associated with AP1 and assigned an ip address | | |
| Test procedure | 1. PC and Laptop link to AP1 2. Disable Inter-ssid-flood on AP1:   “no forwarding-engine inter-ssid-flood enable”   1. Laptop sends broadcast or multicast packet 2. Check the packets’ process on AP1 3. PC sends broadcast or multicast packet 4. Check the packets’ process on AP1 5. Enable Inter-ssid-flood on AP1:   “forwarding-engine inter-ssid-flood enable”   1. Repeat step 3-6 | | |
| Expect result | - The packets should not be flooded to eth0 on step 4  - The packets should not be flooded to wifi port which links to Laptop on step 6  - The packets should be flooded to eth0 or wifi port which links to Laptop on step 8 | | |
| Test result |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_3.3 | Priority | Middle |
| Topology to use | Portal  |  PC1++++++(eth0) AP1(eth1) +++++++PC2  |  Laptop | | |
| Description | Two eth access mode, and link to two pc. | | |
| Pre-condition | -ethx are access mode  -Laptop has been associated with AP1 and assigned an ip address | | |
| Test procedure | 1. PCs and Laptop link to AP1 2. Disable Inter-ssid-flood on AP1:   “no forwarding-engine inter-ssid-flood enable”   1. Laptop sends broadcast or multicast packet 2. Check the packets’ process on AP1 3. PCx sends broadcast or multicast packet 4. Check the packets’ process on AP1 5. Enable Inter-ssid-flood on AP1:   “forwarding-engine inter-ssid-flood enable”   1. Repeat step 3-6 | | |
| Expect result | - The packets should not be flooded to ethx on step 4  - The packets should not be flooded to other ethx and wifi port which links to Laptop on step 6  - The packets should be flooded to ethx or wifi port which links to Laptop on step 8 | | |
| Test result |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_3.4 | Priority | Middle |
| Topology to use | (eth0)+++++  SW++++AP2-------AP1 SW+++++PC  | (eth1) +++++  |  Laptop | | |
| Description | Two eth access in agg0 mode. | | |
| Pre-condition | -ethx are access mode  -Laptop has been associated with AP1 and assigned an ip address | | |
| Test procedure | 1. PC and Laptop link to AP1, and eth0 and eth1 bind to agg0, agg0 is access mode 2. Disable Inter-ssid-flood on AP1:   “no forwarding-engine inter-ssid-flood enable”   1. Laptop sends broadcast or multicast packet 2. Check the packets’ process on AP1 3. PC sends broadcast or multicast packet 4. Check the packets’ process on AP1 5. Enable Inter-ssid-flood on AP1:   “forwarding-engine inter-ssid-flood enable”   1. Repeat step 3-6 | | |
| Expect result | - The packets should not be flooded to agg0 on step 4  - The packets should not be flooded to wifi port which links to Laptop on step 6  - The packets should be flooded to agg0 or wifi port which links to Laptop on step 8 | | |
| Test result |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_3.5 | Priority | Middle |
| Topology to use | (eth0)+++++  SW++++AP2-------AP1 SW+++++PC  | (eth1) +++++  |  Laptop | | |
| Description | Two eth access in red0 mode. | | |
| Pre-condition | -ethx are access mode  -Laptop has been associated with AP1 and assigned an ip address | | |
| Test procedure | 1. PC and Laptop link to AP1, and eth0 and eth1 bind to red0, red0 is access mode 2. Disable Inter-ssid-flood on AP1:   “no forwarding-engine inter-ssid-flood enable”   1. Laptop sends broadcast or multicast packet 2. Check the packets’ process on AP1 3. PC sends broadcast or multicast packet 4. Check the packets’ process on AP1 5. Enable Inter-ssid-flood on AP1:   “forwarding-engine inter-ssid-flood enable”   1. Repeat step 3-6 | | |
| Expect result | - The packets should not be flooded to red0 on step 4  - The packets should not be flooded to wifi port which links to Laptop on step 6  - The packets should be flooded to red0 or wifi port which links to Laptop on step 8 | | |
| Test result |  | | |

## 7.4 Acrossing ap

* Case ID Inter-ssid-flood\_fun\_4

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_4.1 | Priority | Middle |
| Topology to use | SW++++AP2-------AP1-------laptop1  |  Laptop2 | | |
| Description | Flood in mesh topo (different wireless clients) | | |
| Pre-condition | -Laptop has been associated with AP and assigned an ip address, and in different ssid | | |
| Test procedure | 1. Disable Inter-ssid-flood on AP2:   “no forwarding-engine inter-ssid-flood enable”   1. Laptop1 sends broadcast or multicast packet 2. Check the packets’ process on AP2 3. Disable Inter-ssid-flood on AP1   “no forwarding-engine inter-ssid-flood enable”   1. Laptop2 sends broadcast or multicast packet 2. Check the packets’ process on AP1 | | |
| Expect result | - The packets should not be flooded to laptop2 on step 3  - The packets should not be flooded to laptop1 on step 5 | | |
| Test result | AP doesn’t support acrossing ap currently | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_4.2 | Priority | Middle |
| Topology to use | SW++++AP2-------AP1++++pc1  |  Laptop2 | | |
| Description | Flood in mesh topo (wireless, wired clients) | | |
| Pre-condition | -Laptop and pc have been associated with AP and assigned an ip address, and in different ssid | | |
| Test procedure | 1. Disable Inter-ssid-flood on AP2:   “no forwarding-engine inter-ssid-flood enable”   1. Pc1 sends broadcast or multicast packet 2. Check the packets’ process on AP2 3. Disable Inter-ssid-flood on AP1   “no forwarding-engine inter-ssid-flood enable”   1. Laptop2 sends broadcast or multicast packet 2. Check the packets’ process on AP1 | | |
| Expect result | - The packets should not be flooded to laptop2 on step 3  - The packets should not be flooded to pc1 on step 6 | | |
| Test result | AP doesn’t support acrossing ap currently | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_4.3 | Priority | Middle |
| Topology to use | SW++++AP2-------AP1++++pc1  |  pc2 | | |
| Description | Flood in mesh topo ( wired clients) | | |
| Pre-condition | -pc has been associated with AP and assigned an ip address, and in different ssid | | |
| Test procedure | 1. Disable Inter-ssid-flood on AP2:   “no forwarding-engine inter-ssid-flood enable”   1. Pc1 sends broadcast or multicast packet 2. Check the packets’ process on AP2 3. Disable Inter-ssid-flood on AP1   “no forwarding-engine inter-ssid-flood enable”   1. Pc2 sends broadcast or multicast packet 2. Check the packets’ process on AP1 | | |
| Expect result | - The packets should not be flooded to pc2 on step 3  - The packets should not be flooded to pc1 on step 6 | | |
| Test result | AP doesn’t support acrossing ap currently | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Inter-ssid-flood\_Fun\_4.4 | Priority | Middle |
| Topology to use | SW++++AP2-------AP1------laptop1  |  pc2 | | |
| Description | Flood in mesh topo ( wired, wireless clients) | | |
| Pre-condition | -laptop and pc have been associated with AP and assigned an ip address, and in different ssid | | |
| Test procedure | 1. Disable Inter-ssid-flood on AP2:   “no forwarding-engine inter-ssid-flood enable”   1. Laptop1 sends broadcast or multicast packet 2. Check the packets’ process on AP2 3. Disable Inter-ssid-flood on AP1   “no forwarding-engine inter-ssid-flood enable”   1. Pc2 sends broadcast or multicast packet 2. Check the packets’ process on AP1 | | |
| Expect result | - The packets should not be flooded to pc2 on step 3  - The packets should not be flooded to laptop1 on step 6 | | |
| Test result | AP doesn’t support acrossing ap currently | | |