Aerohive Networks Inc.

LLDP CDP test case

Revision History

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| --- | --- | --- | --- |
| Version | Date | Author | Description |
| 0.1 | 05/06/2008 | Jing Li | First version |
| 0.2 | 09/12/2011 | Wei Cai | Update/modify cases |
| 0.3 | 19/12/2011 | Wei Cai | Update cases based on review |
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Table of Contents

[Table of Contents 2](#_Toc311793716)

[1. Introduction 4](#_Toc311793717)

[2. Test Objectives 4](#_Toc311793718)

[3. Test Acceptance Criterion from Development 4](#_Toc311793719)

[4. Product Pass Criterion 4](#_Toc311793720)

[5. Test Bed/Topo Design 4](#_Toc311793721)

[Topology1 4](#_Toc311793722)

[Topology2 5](#_Toc311793723)

[Topology3 5](#_Toc311793724)

[Topology4 5](#_Toc311793725)

[6. TestCase 5](#_Toc311793726)

[6.1. Key Scenarios 5](#_Toc311793727)

[6.2. Function Test Case 9](#_Toc311793728)

[6.2.1. LLDP&CDP parameter test 10](#_Toc311793729)

[6.2.2. LLDP&CDP action test 15](#_Toc311793730)

[6.2.3. LLDP&CDP packet format test 28](#_Toc311793731)

[6.2.4. LLDP&CDP negative test 39](#_Toc311793732)

[6.3. Stress Test Case 40](#_Toc311793733)

[6.4. Duration Test Case 40](#_Toc311793734)

[6.5. Performance Test Case 40](#_Toc311793735)

[6.6. Scalability Test Case 40](#_Toc311793736)

[6.7. Compatibility Test Case 40](#_Toc311793737)

[6.8. CLI Management (Automation Status: Yes/No) 41](#_Toc311793738)

[6.9. GUI Management-HiveManager 41](#_Toc311793739)

[6.10. GUI Management-HiveUI 41](#_Toc311793740)

Glossary and Abbreviations

LLDP: Link Layer Discovery Protocol

CDP: Cisco Discovery Protocol

# Introduction

LLDP promises to simplify troubleshooting of enterprise networks and enhance the ability of network management tools to discover and maintain accurate network topologies.

The Cisco Discovery Protocol(CDP) is a link layer protocol that is used by Cisco devices to communicate protocol and set up information to other devices. CDP runs over the data link layer only, so it provides a mechanism for two neighbors devices to learn about each other, even when they are supporting different network layer protocols.

# Test Objectives

This test case includes 5 test points:

1. Key scenarios

2. Modify LLDP/CDP Parameter

3. LLDP/CDP send/receive action

4. LLDP packet format

5. Negative

Note: All of this info should come from requirement/spec, if has not this info in requirement/spec, pls ask dev and get the expected info/number. If no expected number, we try to give out the QA’s expected number.

# Test Acceptance Criterion from Development

* Approved – Functional Specifications
* Approved – Unit Test Plans

# Product Pass Criterion

Meet all objects in marketing requirement or function spec which may include key function objectives, scalability objectives, performance objectives and so on.

# Test Bed/Topo Design

## Topology1

L2SW++++++L3SW++++++Server

+ +

+ +

AP1--AP2

## Topology2

L2SW++++++L3SW++++++Server

+ +

+ +

AP1--AP2

| |

| |

AP3--AP4

## Topology3

L3SW++++++Server

+ +

+ +

AP1

## Topology4

(Cisco)++++++L2SW++++++L3SW(H3C)

+ +

+ +

AP1--AP2

# TestCase

## Key Scenarios

##### Case ID LLDP&CDP\_Key\_Scenarios\_1

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_CDP\_Key\_Scenarios\_1 | | |
| Priority | Accept | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | AP can detect lldp neighbor successfully | | |
| Pre-condition | L3SW is H3C router  Enable lldp on AP1  Enable lldp on AP2  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Show lldp neighbors’ status on AP1  ***“show lldp neighbor”***  2.Show lldp neighbors’ status on AP2  ***“show lldp neighbor”***  3. Show lldp neighbors’ status on H3C  ***“display lldp neighbor-information interface <H3C inter>”*** | | |
| Expect result | 1.We can see the H3C’s interface and AP2’s information correctly  ***H3C***  Chassis ID(mac address): 3ce5:a64a:768e  Port ID(mac address): 3ce5:a64a:768e  Hold time(seconds): 119  Port description: Ethernet1/0/10  System name: H3C  System description: H3C S3600-28P-PWR-EI  System capabilities: bridge, router  Enables capabilities: bridge, router  Management address:  IP address: 172.16.116.254  interface subtype:Interface index, number:231  Oid: 00  TIA - Media Capabilities:  Capabilities: 0x2f  LLDP-MED capabilities  network policy  location identification  extended power via MDI - PSE  Inventory  Device Type: Network Connectivity  Network Policy:  applicaton type: reserved  policy: unknown  tagged: no  vlan id: 0  l2 priority: 0  DSCP value: 0  Extended Power-via-MDI:  power type: PSE device  power source: primary  power priority: low  power value: 154  hardware revision: REV.B  firmware revision: 604  software revision: LANSwitch Ver 1.0  serial number: 210235A10NH107000084  manufacturer name: H3C  model name: S3600-EI  asset ID: Unknown  802.3 MAC/PHY status:  auto-negotiation support/status: 0x03  auto-negotiation: supported  auto-negotiation: enabled  PMD auto-negotiation: 0xf06c  Bit on: other or unknown  Bit on: 10BASE-T(half duplex)  Bit on: 10BASE-T(full duplex)  Bit on: 100BASE-T4  Bit on: Asymmetric PAUSE for full-duplex links  Bit on: Symmetric PAUSE for full-duplex links  Bit on: 1000BASE-X, -LX, -SX, -CX half duplex  Bit on: 1000BASE-X, -LX, -SX, -CX full duplex  MAU: 100BaseTXFD - 2 pair category 5 UTP, full duplex  802.3 Power Via MDI:  MDI Power Support: 0x07  Port Class: PSE  PSE MDI power: supported  PSE MDI power enabled: yes  PSE pairs control ability: no  PSE power pair: 1  power class: 1  802.3 Link Aggregation:  aggregation status: 0x01  aggregation capability: yes  aggregation status: not enabled  aggregation port: 0  802.3 Max Frame Size: 9216  802.1 port VLAN identifier: 26  802.1 port and protocol VLAN:  Flags: 0x02  port and protocol VLAN: supported  port and protocol VLAN: not enabled  port and protocol VLAN identifier: 1  802.1 VLAN Identifier: 1, VLAN name: VLAN 0001  ***AP***  Chassis ID(mac address): 0019:7745:9600  Port ID(interface name): mgt0  Hold time(seconds): 65  System name: CW350  System capabilities: bridge, WLAN access point  Enables capabilities: bridge  Management address:  IP address: 172.16.117.145  interface subtype:Interface index, number:11  802.3 Link Aggregation:  aggregation status: 0x01  aggregation capability: yes  aggregation status: not enabled  aggregation port: 0  802.3 Max Frame Size: 1500  TIA - Media Capabilities:  Capabilities: 0x11  LLDP-MED capabilities  extended power via MDI - PD  Device Type: Endpoint Class I  Extended Power-via-MDI:  power type: PD device  power source: PSE  power priority: critical  power value: 154  2.We can see the H3C’s interface and AP1’s information correctly  3.We can see the AP1’s interface and AP2’s information correctly  LLDP neighbor-information of port 10[Ethernet1/0/10]:  Neighbor index : 1  Update time : 71 days,1 hours,34 minutes,37 seconds  Chassis type : MAC address  Chassis ID : 0019-7745-9600  Port ID type : Interface name  Port ID : mgt0  System name : CW350  System capabilities supported : Bridge,WlanAccessPoint  System capabilities enabled : Bridge  Management address type : ipV4  Management address : 172.16.117.145  Management address interface type : IfIndex  Management address interface ID : 11  Management address OID :  Link aggregation supported : Yes  Link aggregation enabled : No  Aggregation port ID : 0  Maximum frame Size: 1500  Device class: Endpoint Class I  PoE PSE power source : Primary  Port PSE Priority : Critical  Port Available power value: 15.4(w)  Neighbor index : 2  Update time : 70 days,23 hours,12 minutes,17 seconds  Chassis type : MAC address  Chassis ID : 0019-7745-7f80  Port ID type : Interface name  Port ID : mgt0  System name : CW330  System capabilities supported : Bridge,WlanAccessPoint  System capabilities enabled : Bridge,WlanAccessPoint  Management address type : ipV4  Management address : 172.16.116.139  Management address interface type : IfIndex  Management address interface ID : 11  Management address OID :  Link aggregation supported : Yes  Link aggregation enabled : No  Aggregation port ID : 0  Maximum frame Size: 1500  Device class: Endpoint Class I  PoE PSE power source : Primary  Port PSE Priority : Critical  Port Available power value: 15.4(w) | | |

##### Case ID LLDP&CDP\_Key\_Scenarios\_2

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_CDP\_Key\_Scenarios\_2 | | |
| Priority | Accept | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | AP can detect CDP neighbor successfully | | |
| Pre-condition | L3SW is Cisco router  Enable lldp cdp on AP1  Enable lldp cdp on AP2  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Show lldp neighbors’ status on AP1  ***“show lldp cdp neighbor”***  2.Show lldp neighbors’ status on AP2  ***“show lldp cdp neighbor”***  3. Show lldp neighbors’ status on Cisco  ***“show cdp neighbors fastEthernet <cisco inter>”*** | | |
| Expect result | 1.We can see the Cisco’s interface information correctly  CW350#show lldp cdp neighbor  CDP neighbor table: Total number = 1  Device-ID: NetWork  Device addresses:  Device addresses number: 1  IP Address: 172.16.121.254  Holdtime: 161 sec  System Capabilities: Router ,Transparent\_Bridge  Version:Cisco Internetwork Operating System Software  IOS (tm) L3 Switch/Router Software (CAT2948G-IN-M), Version 12.0(25)W5(27d) RELEASE SOFTWARE  Copyright (c) 1986-2005 by cisco Systems, Inc.  Compiled Thu 18-Aug-05 14:42 by integ  Platform: cisco Cat2948G  Port-ID (Port on Neighbor's Device): FastEthernet36  2.We can see the Cisco’s interface information correctly  3.We cannot see any AP’s information | | |

## Function Test Case

### LLDP&CDP parameter test

#### LLDP parameter test

##### Case ID LLDP\_parameter\_1

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_parameter\_1 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP hold time test(10-255) | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1. Show lldp neighbors’ status on AP1  ***“show lldp neighbor”***  2.Shutdown AP2  ***“interface eth0 shutdown”***  3. Show lldp neighbors’ status on AP1 after 90s  ***“show lldp neighbor”***  4. Recover AP2  ***“no interface eth0 shutdown”***  5.Modify the holdtime on AP2  ***lldp holdtime 10***  6. Show lldp neighbors’ status on AP1  ***“show lldp neighbor”***  7. Shutdown AP2  ***“interface eth0 shutdown”***  8. Show lldp neighbors’ status on AP1 after 10s  ***“show lldp neighbor”***  9. Recover AP2  ***“no interface eth0 shutdown”***  10.Modify the holdtime on AP2  ***lldp holdtime 255***  11. Show lldp neighbors’ status on AP1  ***“show lldp neighbor”***  12. Shutdown AP2  ***“interface eth0 shutdown”***  13. Show lldp neighbors’ status on AP1 after 255s  ***“show lldp neighbor”*** | | |
| Expect result | 1. We can see the H3C’s interface and AP1’s information correctly  3. We can see only H3C’s information  6. We can see the H3C’s interface and AP1’s information correctly  8. We can see only H3C’s information  11. We can see the H3C’s interface and AP1’s information correctly  13. We can see only H3C’s information | | |

##### Case ID LLDP\_parameter\_2

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_parameter\_2 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology2 | | |
| Description | LLDP max-entries test(1-128) | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  **-Configure on AP3**  ***“lldp”***  **-Configure on AP4**  ***“lldp”***  AP1/AP2/AP3/AP4 is in the same vlan | | |
| Test procedure | 1. Show lldp neighbors’ total number on AP1(use tools send various info lldp packets)  ***“show lldp | include neighbor”***  2.Modify the max-entries on AP1  ***“lldp max-entries 1”***  3. Show lldp neighbors’ total number on AP1(after hold time 90s) (use tools send various info lldp packets)  ***“show lldp | include neighbor”***  4.Modify the max-entries on AP1  ***“lldp max-entries 128”***  5. Show lldp neighbors’ total number on AP1(after hold time 90s) (use tools send various info lldp packets)  ***“show lldp | include neighbor”*** | | |
| Expect result | 1. LLDP neighbors number is 4, LLDP neighbors max number is 64  show lldp | include neighbor  Number of LLDP neighbors: 64  Max number of LLDP neighbors: 64  3. LLDP neighbors number is 1, LLDP neighbors max number is 1  show lldp | include neighbor  Number of LLDP neighbors: 1  Max number of LLDP neighbors: 1  5. LLDP neighbors number is 4, LLDP neighbors max number is 128  show lldp | include neighbor  Number of LLDP neighbors: 128  Max number of LLDP neighbors: 128 | | |

##### Case ID LLDP\_parameter\_3

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_parameter\_3 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP max-power test(1-250) | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1. Show lldp max-power’ status on AP1  ***“show lldp | include power”***  2. Show lldp status on H3C  ***“display lldp neighbor-information interface Ethernet 1/0/10”***  3.Modify the max-power on AP1  ***“lldp max-power 1”***  4. Show lldp max-power’ status on AP1  ***“show lldp | include power”***  5. Show lldp status on H3C  ***“display lldp neighbor-information interface Ethernet 1/0/10”***  6.Modify the max-power on AP1  ***“lldp max-power 250”***  7. Show lldp max-power’ status on AP1  ***“show lldp | include power”***  8. Show lldp status on H3C  ***“display lldp neighbor-information interface Ethernet 1/0/10”*** | | |
| Expect result | 1. LLDP max-power is 15.4w(110/120 is )  2. AP1’s power request is 15.4w(110/120 is )  4. LLDP max-power is 0.1w  5. AP1’s power request is 0.1w  7. LLDP max-power is 25w(may cause AP up/down)  8. AP1’s power request is 25w | | |

##### Case ID LLDP\_parameter\_4

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_parameter\_4 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP timer(the interval of sending lldp packets) test(5-250) | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1. Show lldp timer’ status on AP1  ***“show lldp | include interval”***  2. Open debug switch and look up the log  ***“\_debug dcd lldp\_packet”***  ***“debug console”***  3.Modify the timer on AP1  ***“lldp timer 5”***  4. Show lldp timer’ status on AP1  ***“show lldp | include interval”***  5. look up the log  6.Modify the timer on AP1  ***“lldp timer 250”***  7. Show lldp timer’ status on AP1  ***“show lldp | include interval”***  8. look up the log | | |
| Expect result | 1. LLDP timer is 30s  2. The LLDP packets sending interval is 30s  2011-12-13 03:33:33 debug ah\_dcd: [dcd\_lldp\_packet]: send lldp packet from interface eth0.  2011-12-13 03:33:33 debug ah\_dcd: [dcd\_lldp\_packet]: send lldp packet from interface eth1.  2011-12-13 03:33:33 debug ah\_dcd: [dcd\_lldp\_packet]: send lldp packet from interface wifi1.1.  2011-12-13 03:34:03 debug ah\_dcd: [dcd\_lldp\_packet]: send lldp packet from interface eth0.  2011-12-13 03:34:03 debug ah\_dcd: [dcd\_lldp\_packet]: send lldp packet from interface eth1.  2011-12-13 03:34:03 debug ah\_dcd: [dcd\_lldp\_packet]: send lldp packet from interface wifi1.1.  4. LLDP timer is 5s  5. The LLDP packets sending interval is 5s  2011-12-13 03:37:03 debug ah\_dcd: [dcd\_lldp\_packet]: send lldp packet from interface eth0.  2011-12-13 03:37:03 debug ah\_dcd: [dcd\_lldp\_packet]: send lldp packet from interface eth1.  2011-12-13 03:37:03 debug ah\_dcd: [dcd\_lldp\_packet]: send lldp packet from interface wifi1.1.  2011-12-13 03:37:08 debug ah\_dcd: [dcd\_lldp\_packet]: send lldp packet from interface eth0.  2011-12-13 03:37:08 debug ah\_dcd: [dcd\_lldp\_packet]: send lldp packet from interface eth1.  2011-12-13 03:37:08 debug ah\_dcd: [dcd\_lldp\_packet]: send lldp packet from interface wifi1.1.  7. LLDP timer is 5s  8. The LLDP packets sending interval is 5s | | |

##### Case ID LLDP\_parameter\_5

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_parameter\_5 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP receive-only test | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1. Show lldp neighbors’ status on AP1  2. Show lldp neighbors’ status on H3C  3.Modify LLDP to receive-only on AP2  ***“lldp receive-only”***  4. After hold time(90s),Show lldp neighbors’ status on AP1  5. Show lldp neighbors’ status on H3C  6.Recover  ***“no lldp receive-only”***  7.Show lldp neighbors’ status on AP1  8. Show lldp neighbors’ status on H3C | | |
| Expect result | 1.We can see the H3C’s interface and AP2’s information correctly  2.We can see the AP1’s and AP2’s information correctly  4.We can only see the H3C’s interface information  5.We can only see the AP1’s information  7.We can see the H3C’s interface and AP2’s information correctly  8.We can see the AP1’s and AP2’s information correctly | | |

#### CDP parametet test

##### Case ID CDP\_parameter\_1

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | CDP\_parameter\_1 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Topology2 | | |
| Description | CDP max-entries test(max-min) | | |
| Pre-condition | L3SW is Cisco router  **-Configure on AP1**  ***“lldp cdp”***  **-Configure on AP2**  ***“lldp cdp”***  **-Configure on AP3**  ***“lldp cdp”***  **-Configure on AP4**  ***“lldp cdp”***  AP1/AP2/AP3/AP4 is in the same vlan | | |
| Test procedure | 1. Show CDP neighbors’ total number on AP1(use tools send various info cdp packets to AP1)  ***“show lldp cdp | include neighbor”***  2.Modify the max-entries on AP1  ***“lldp cdp max-entries 1”***  3. Show CDP neighbors’ total number on AP1(after hold time 90s) (use tools send various info cdp packets to AP1)  ***“show lldp cdp | include neighbor”***  4.Modify the max-entries on AP1  ***“lldp cdp max-entries 128”***  5. Show CDP neighbors’ total number on AP1(after hold time 90s) (use tools send various info cdp packets to AP1)  ***“show lldp cdp | include neighbor”*** | | |
| Expect result | 1. CDP neighbors number is 64, CDP neighbors max number is 64  3. CDP neighbors number is 1, CDP neighbors max number is 1  5. CDP neighbors number is 128, CDP neighbors max number is 128 | | |

### LLDP&CDP action test

#### LLDP send action test

##### Case ID LLDP\_send\_action\_1

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_send\_action\_1 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP is disable and not send lldp packets by default | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  **-Configure on AP2**  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Show lldp status on AP1  2.Open lldp debug switch and look up logs on AP1  ***“\_debug dcd lldp\_packet”***  ***“debug console”*** | | |
| Expect result | 1.LLDP is disable on AP1  CW320#show lldp  LLDP general information  ----------------------------  Enabled: no  Number of LLDP neighbors: 0  Max number of LLDP neighbors: 64  Sending LLDP packets interval (seconds): 5  Sending a holdtime value (seconds): 90  Sending a required power value (watt): 15.4  2. AP does not send any lldp packets | | |

##### Case ID LLDP\_send\_action\_2

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_send\_action\_2 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP is sent via Ethx when Ethx enable lldp and AP enable lldp | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  **-Configure on AP2**  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Enable lldp on AP1  ***“lldp”***  2.Open lldp debug switch and look up logs on AP1  ***“\_debug dcd lldp\_packet”***  ***“debug console”***  3.Disable ethX lldp  ***“no interface ethX link-discovery lldp”***  4.Look up logs on AP1  5.Recover  6.Look up logs on AP1  7.Modify inter ethX’ mode to access  8.Look up logs on AP1 | | |
| Expect result | 2. AP has sent lldp packets via ethX  2011-12-13 07:56:20 debug [dcd\_lldp\_packet]: send lldp packet from interface eth0.  2011-12-13 07:56:20 debug [dcd\_lldp\_packet]: send lldp packet from interface eth1.  4. AP has sent lldp packets via other interfaces, not ethX  6. AP has sent lldp packets via ethX  8. AP has sent lldp packets via ethX(access mode) | | |

##### Case ID LLDP\_send\_action\_3\*

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_send\_action\_3 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology3 | | |
| Description | LLDP is sent via Red0 when Red0 enable lldp and AP enable lldp | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“interface eth0 bind red0”***  ***“interface eth0 bind red0”*** | | |
| Test procedure | 1.Enable lldp on AP1  ***“lldp”***  2.Open lldp debug switch and look up logs on AP1  ***“\_debug dcd lldp\_packet”***  ***“debug console”***  3.Disable Red0 lldp  ***“no interface red0 link-discovery lldp”***  4.Look up logs on AP1  5.Recover  6.Look up logs on AP1 | | |
| Expect result | 2. AP has sent lldp packets via red0(primary interface eth0, eth1’s should be drop)(may send all the interface, never drop? Need confirm)  4. AP has sent lldp packets via other interfaces, no red0  6. AP has sent lldp packets via red0(primary interface eth0, eth1’s should be drop) | | |
| Comment | 2009-11-02 17:19:04 debug [fe]: (o) red0 0019:7703:9402->0180:c200:000e(0x88cc) 111 bytes  2009-11-02 17:19:04 debug [fe]: QoS: pkt forwarded  2009-11-02 17:19:04 debug [fe]: (o) (eth0) eth0 0019:7703:9402->0180:c200:000e(0x88cc) 111 bytes  2009-11-02 17:19:04 debug [fe]: wifi1.1 stuff ah-hdr nhop ffff:ffff:ffff ttl 16  2009-11-02 17:19:04 debug [fe]: (o) wifi1.1 0019:7703:9420->0180:c200:000e(0x88cc) 93 bytes  2009-11-02 17:19:04 debug [fe]: QoS: pkt queued  2009-11-02 17:19:04 debug [fe]: Tx:wifi1.1:1> 0019:7703:9420->0180:c200:000e profile idx=0 pkt\_len=93 q\_len=0 QoS buf=0  **2009-11-02 17:19:04 debug [fe]: drop broadcast pkt on non-primrary interface eth1** | | |

##### Case ID LLDP\_send\_action\_4

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_send\_action\_4 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology3 | | |
| Description | LLDP is sent via agg0 when agg0 enable lldp and AP enable lldp | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“interface eth0 bind agg0”***  ***“interface eth0 bind agg0”*** | | |
| Test procedure | 1.Enable lldp on AP1  ***“lldp”***  2.Open lldp debug switch and look up logs on AP1  ***“\_debug dcd lldp\_packet”***  ***“debug console”***  3.Disable agg0 lldp  ***“no interface agg0 link-discovery lldp”***  4.Look up logs on AP1  5.Recover  6.Look up logs on AP1 | | |
| Expect result | 2. AP has sent lldp packets via agg0  4. AP has sent lldp packets via other interfaces, not agg0  6. AP has sent lldp packets via agg0 | | |

##### Case ID LLDP\_send\_action\_5

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_send\_action\_5 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP is sent via Wifix(backhaul/dual) when Wifix enable lldp and AP enable lldp | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“interface wifi0 mode backhual”***  ***“interface wifi0 radio channel 11”***  ***“interface wifi1 radio channel 40”***  **-Configure on AP2**  ***“interface wifi0 mode backhual”***  ***“interface wifi0 radio channel 11”***  ***“interface wifi1 radio channel 40”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Enable lldp on AP1  ***“lldp”***  2.Open lldp debug switch and look up logs on AP1  ***“\_debug dcd lldp\_packet”***  ***“debug console”***  3.Disable wifiX lldp  ***“no interface wifiX link-discovery lldp”***  4.Look up logs on AP1  5.Recover  6.Look up logs on AP1  7.Modify inter wifiX’ mode to access  8.Look up logs on AP1 | | |
| Expect result | 2. AP has sent lldp packets via wifiX  4. AP has sent lldp packets via other interfaces, not wifiX  6. AP has sent lldp packets via wifiX  8. AP has sent lldp packets via other interfaces, not wifiX (access mode) | | |

#### LLDP receive action test

##### Case ID LLDP\_receive\_action\_1

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_receive\_action\_1 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP is disable and not receive lldp packets by default | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Show lldp status on AP1  2.Open lldp debug switch and look up logs on AP1  ***“\_debug dcd lldp\_packet”***  ***“debug console”*** | | |
| Expect result | 1.LLDP is disable on AP1  CW320#show lldp  LLDP general information  ----------------------------  Enabled: no  Number of LLDP neighbors: 0  Max number of LLDP neighbors: 64  Sending LLDP packets interval (seconds): 5  Sending a holdtime value (seconds): 90  Sending a required power value (watt): 15.4  2. AP cannot receive any lldp packets | | |

##### Case ID LLDP\_receive\_action\_2

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_receive\_action\_2 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP is received via Ethx when Ethx enable lldp and AP enable lldp | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  **-Configure on AP2**  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Enable lldp on AP1/AP2  ***“lldp”***  2.Open lldp debug switch to look up logs and show lldp neighbors’ status on AP1  ***“\_debug dcd lldp\_packet”***  ***“debug console”***  ***“show lldp neighbor”***  3.Disable ethX lldp  ***“no interface ethX link-discovery lldp”***  4.Look up logs and show lldp neighbors’ status on AP1  ***“show lldp neighbor”***  5.Recover  6. Look up logs and show lldp neighbors’ status on AP1  ***“show lldp neighbor”***  7.Modify inter ethX’ mode to access  8. Look up logs and show lldp neighbors’ status on AP1  ***“show lldp neighbor”*** | | |
| Expect result | 2. AP has received lldp packets via ethX and can display neighbors’ information correctly  2011-12-13 08:57:40 debug [dcd\_lldp\_packet]: receive lldp packet, on this interface(eth0).  4. AP cannot receive any lldp packets via ethX, and cannot display any neighbors’ information(only ethX connect to sw and cannot connect to other APs via wifi)  6. AP has received lldp packets via ethX and can display neighbors’ information correctly  8. AP has received lldp packets via ethX(access mode) and can display neighbors’ information correctly | | |

##### Case ID LLDP\_receive\_action\_3

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_receive\_action\_3 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology3 | | |
| Description | LLDP is received via Red0 when Red0 enable lldp and AP enable lldp | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“interface eth0 bind red0”***  ***“interface eth0 bind red0”*** | | |
| Test procedure | 1.Enable lldp on AP1  ***“lldp”***  2.Open lldp debug switch to look up logs and show lldp neighbors’ status on AP1  ***“\_debug dcd lldp\_packet”***  ***“debug console”***  3.Disable Red0 lldp  ***“no interface red0 link-discovery lldp”***  4.Look up logs on AP1 and show lldp neighbors’ status  5.Recover  6.Look up logs on AP1 and show lldp neighbors’ status | | |
| Expect result | 2. AP has received lldp packets via red0(primary interface eth0, eth1’s should be drop), and AP can display neighbors’ information correctly  4. AP cannot receive any lldp packets via red0, and cannot display any neighbors’ information(only red0 connect to sw and cannot connect to other APs via wifi)  6. AP has received lldp packets via red0(primary interface eth0, eth1’s should be drop) , and AP can display neighbors’ information correctly | | |
| Comment | 2009-12-14 00:27:55 debug [fe]: (i) (eth1) red0 001e:2a48:cbb0->0180:c200:000e(0x88cc) 47 bytes  2009-12-14 00:27:55 debug [fe]: drop broadcast pkt on non-primrary interface eth1  2009-12-14 00:27:55 debug [fe]: (!) (eth1) eth1 001e:2a48:cbb0->0180:c200:000e(0x88cc) 47 bytes  2009-12-14 00:27:55 debug [fe]: drop broadcast pkt on non-primrary interface eth1  VPN-Server-980#2009-12-14 00:28:04 debug last message repeated 66 times  2009-12-14 00:28:04 debug [fe]: (i) (eth0) red0 001e:2a48:cbb1->0180:c200:000e(0x88cc) 47 bytes  2009-12-14 00:28:04 debug [fe]: pkt upstack with raw dev red0  2009-12-14 00:28:04 debug [fe]: ah llc-pak, to self  2009-12-14 00:28:04 debug [fe]: deliver pak to self on red0  2009-12-14 00:28:04 debug [fe]: (u) red0 001e:2a48:cbb1->0180:c200:000e(0x88cc) 47 bytes  2009-12-14 00:28:05 debug [fe]: drop broadcast pkt on non-primrary interface eth1 | | |

##### Case ID LLDP\_receive\_action\_4

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_receive\_action\_4 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology3 | | |
| Description | LLDP is received via agg0 when agg0 enable lldp and AP enable lldp | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“interface eth0 bind agg0”***  ***“interface eth0 bind agg0”*** | | |
| Test procedure | 1.Enable lldp on AP1  ***“lldp”***  2.Open lldp debug switch to look up logs and show lldp neighbors’ status on AP1  ***“\_debug dcd lldp\_packet”***  ***“debug console”***  3.Disable agg0 lldp  ***“no interface agg0 link-discovery lldp”***  4.Look up logs on AP1 and show lldp neighbors’ status  5.Recover  6.Look up logs on AP1 and show lldp neighbors’ status | | |
| Expect result | 2. AP has received lldp packets via agg0(both eth0&1) and AP can display neighbors’ information correctly  4. AP cannot receive lldp packets via agg0(both eth0&1), and cannot display any neighbors’ information(only red0 connect to sw and cannot connect to other APs via wifi)  6. AP has received lldp packets via agg0(both eth0&1), and AP can display neighbors’ information correctly | | |
| Comment | 2009-12-14 20:17:50 debug [fe]: (i) (eth0) agg0 001e:2a48:cbaf->0180:c200:000e(0x88cc) 141 bytes  2009-12-14 20:17:50 debug [fe]: pkt upstack with raw dev agg0  2009-12-14 20:17:50 debug [fe]: ah llc-pak, to self  2009-12-14 20:17:50 debug [fe]: deliver pak to self on agg0  2009-12-14 20:17:50 debug [fe]: (u) agg0 001e:2a48:cbaf->0180:c200:000e(0x88cc) 141 bytes  2009-12-14 20:18:05 debug [fe]: (i) (eth1) agg0 001e:2a48:cbaf->0180:c200:000e(0x88cc) 141 bytes  2009-12-14 20:18:05 debug [fe]: pkt upstack with raw dev agg0  2009-12-14 20:18:05 debug [fe]: ah llc-pak, to self  2009-12-14 20:18:05 debug [fe]: deliver pak to self on agg0  2009-12-14 20:18:05 debug [fe]: (u) agg0 001e:2a48:cbaf->0180:c200:000e(0x88cc) 141 bytes | | |

##### Case ID LLDP\_receive\_action\_5

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_receive\_action\_5 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP is received via Wifix(backhaul/dual) when Wifix enable lldp and AP enable lldp | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“interface wifi0 mode backhual”***  ***“interface wifi0 radio channel 11”***  ***“interface wifi1 radio channel 40”***  **-Configure on AP2**  ***“interface wifi0 mode backhual”***  ***“interface wifi0 radio channel 11”***  ***“interface wifi1 radio channel 40”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Enable lldp on AP1/AP2  ***“lldp”***  2.Open lldp debug switch to look up logs and show lldp neighbors’ status on AP1  ***“\_debug dcd lldp\_packet”***  ***“debug console”***  3.Disable wifiX lldp  ***“no interface wifiX link-discovery lldp”***  4.Look up logs and show lldp neighbors’ status on AP1  5.Recover  6.Look up logs and show lldp neighbors’ status on AP1  7.Modify inter wifiX’ mode to access  8.Look up logs and show lldp neighbors’ status on AP1 | | |
| Expect result | 2. AP has received lldp packets via wifiX and can display neighbors’ information correctly  4. AP cannot receive lldp packets via wifiX and cannot display any neighbors’ information  6. AP has received lldp packets via wifiX and can display neighbors’ information correctly  8. AP cannot receive lldp packets via wifiX (access mode) and cannot display any neighbors’ information | | |

##### Case ID LLDP\_receive\_action\_6

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_receive\_action\_6 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP neighbors’ table can be cleared manually | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1. Show lldp neighbors’ status on AP1  2. Clear lldp neighbors’ table  3. Show lldp neighbors’ status on AP1 | | |
| Expect result | 1.We can see the H3C’s interface and AP2’s information correctly  2.We cannot see any lldp neighbors’ status  3.We can see the H3C’s interface and AP2’s information correctly | | |

##### Case ID LLDP\_receive\_action\_7

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_receive\_action\_7 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP packets cannot transmit through the AP | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Open lldp debug switch to look up logs  ***“\_ff id 1 src-mac 0180:c200:000e bidirectional”***  ***“\_debug dcd lldp\_packet”***  ***“\_kdebug fe basic”***  ***“\_kdebug fe detail”***  ***“debug console”*** | | |
| Expect result | 1.We can see the lldp packets from H3C and AP2 can be captured by interface ethX , processed by AP and not sent out again | | |

#### CDP receive action test

##### Case ID CDP\_receive\_action\_1

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | CDP\_receive\_action\_1 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | CDP is disable and not receive CDP packets by default | | |
| Pre-condition | L3SW is CISCO router  **-Configure on AP1**  **-Configure on AP2**  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Show CDP status on AP1  2.Open CDP debug switch and look up logs on AP1  ***“\_debug dcd cdp\_packet”***  ***“debug console”*** | | |
| Expect result | 1.CDP is disable on AP1  2. AP cannot receive any CDP packets | | |

##### Case ID CDP\_receive\_action\_2

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | CDP\_receive\_action\_2 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | CDP is received via Ethx when Ethx enable CDP and AP enable CDP | | |
| Pre-condition | L3SW is CISCO router  **-Configure on AP1**  **-Configure on AP2**  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Enable CDP on AP1/AP2  ***“lldp cdp”***  2.Open CDP debug switch to look up logs and show CDP neighbors’ status on AP1  ***“\_debug dcd CDP\_packet”***  ***“debug console”***  ***“show CDP neighbor”***  3.Disable ethX CDP  ***“no interface ethX link-discovery CDP”***  4.Look up logs and show CDP neighbors’ status on AP1  ***“show CDP neighbor”***  5.Recover  6. Look up logs and show CDP neighbors’ status on AP1  ***“show CDP neighbor”***  7.Modify inter ethX’ mode to access  8. Look up logs and show CDP neighbors’ status on AP1  ***“show CDP neighbor”*** | | |
| Expect result | 2. AP has received CDP packets via ethX and can display neighbors’ information correctly  4. AP cannot receive any CDP packets via ethX, and cannot display any neighbors’ information(only ethX connect to sw and cannot connect to other APs via wifi)  6. AP has received CDP packets via ethX and can display neighbors’ information correctly  8. AP has received CDP packets via ethX(access mode) and can display neighbors’ information correctly | | |

##### Case ID CDP\_receive\_action\_3

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | CDP\_receive\_action\_3 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology3 | | |
| Description | CDP is received via Red0 when Red0 enable CDP and AP enable CDP | | |
| Pre-condition | L3SW is CISCO router  **-Configure on AP1**  ***“interface eth0 bind red0”***  ***“interface eth0 bind red0”*** | | |
| Test procedure | 1.Enable CDP on AP1  ***“lldp cdp”***  2.Open CDP debug switch to look up logs and show CDP neighbors’ status on AP1  ***“\_debug dcd cdp\_packet”***  ***“debug console”***  3.Disable Red0 CDP  ***“no interface red0 link-discovery cdp”***  4.Look up logs on AP1 and show CDP neighbors’ status  5.Recover  6.Look up logs on AP1 and show CDP neighbors’ status | | |
| Expect result | 2. AP has received CDP packets via red0(primary interface eth0, eth1’s should be drop), and AP can display neighbors’ information correctly  4. AP cannot receive any CDP packets via red0, and cannot display any neighbors’ information(only red0 connect to sw and cannot connect to other APs via wifi)  6. AP has received CDP packets via red0(primary interface eth0, eth1’s should be drop) , and AP can display neighbors’ information correctly | | |
| Comment | 2009-12-14 00:27:55 debug [fe]: (i) (eth1) red0 001e:2a48:cbb0->0180:c200:000e(0x88cc) 47 bytes  2009-12-14 00:27:55 debug [fe]: drop broadcast pkt on non-primrary interface eth1  2009-12-14 00:27:55 debug [fe]: (!) (eth1) eth1 001e:2a48:cbb0->0180:c200:000e(0x88cc) 47 bytes  2009-12-14 00:27:55 debug [fe]: drop broadcast pkt on non-primrary interface eth1  VPN-Server-980#2009-12-14 00:28:04 debug last message repeated 66 times  2009-12-14 00:28:04 debug [fe]: (i) (eth0) red0 001e:2a48:cbb1->0180:c200:000e(0x88cc) 47 bytes  2009-12-14 00:28:04 debug [fe]: pkt upstack with raw dev red0  2009-12-14 00:28:04 debug [fe]: ah llc-pak, to self  2009-12-14 00:28:04 debug [fe]: deliver pak to self on red0  2009-12-14 00:28:04 debug [fe]: (u) red0 001e:2a48:cbb1->0180:c200:000e(0x88cc) 47 bytes  2009-12-14 00:28:05 debug [fe]: drop broadcast pkt on non-primrary interface eth1 | | |

##### Case ID CDP\_receive\_action\_4

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | CDP\_receive\_action\_4 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology3 | | |
| Description | CDP is received via agg0 when agg0 enable CDP and AP enable CDP | | |
| Pre-condition | L3SW is CISCO router  **-Configure on AP1**  ***“interface eth0 bind agg0”***  ***“interface eth0 bind agg0”*** | | |
| Test procedure | 1.Enable CDP on AP1  ***“lldp cdp”***  2.Open CDP debug switch to look up logs and show CDP neighbors’ status on AP1  ***“\_debug dcd cdp\_packet”***  ***“debug console”***  3.Disable agg0 CDP  ***“no interface agg0 link-discovery cdp”***  4.Look up logs on AP1 and show CDP neighbors’ status  5.Recover  6.Look up logs on AP1 and show CDP neighbors’ status | | |
| Expect result | 2. AP has received CDP packets via agg0(both eth0&1) and AP can display neighbors’ information correctly  4. AP cannot receive CDP packets via agg0(both eth0&1), and cannot display any neighbors’ information(only red0 connect to sw and cannot connect to other APs via wifi)  6. AP has received CDP packets via agg0(both eth0&1), and AP can display neighbors’ information correctly | | |
| Comment | 2009-12-14 20:17:50 debug [fe]: (i) (eth0) agg0 001e:2a48:cbaf->0180:c200:000e(0x88cc) 141 bytes  2009-12-14 20:17:50 debug [fe]: pkt upstack with raw dev agg0  2009-12-14 20:17:50 debug [fe]: ah llc-pak, to self  2009-12-14 20:17:50 debug [fe]: deliver pak to self on agg0  2009-12-14 20:17:50 debug [fe]: (u) agg0 001e:2a48:cbaf->0180:c200:000e(0x88cc) 141 bytes  2009-12-14 20:18:05 debug [fe]: (i) (eth1) agg0 001e:2a48:cbaf->0180:c200:000e(0x88cc) 141 bytes  2009-12-14 20:18:05 debug [fe]: pkt upstack with raw dev agg0  2009-12-14 20:18:05 debug [fe]: ah llc-pak, to self  2009-12-14 20:18:05 debug [fe]: deliver pak to self on agg0  2009-12-14 20:18:05 debug [fe]: (u) agg0 001e:2a48:cbaf->0180:c200:000e(0x88cc) 141 bytes | | |

##### Case ID CDP\_receive\_action\_5

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | CDP\_receive\_action\_5 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | CDP is received via Wifix(backhaul/dual) when Wifix enable CDP and AP enable CDP | | |
| Pre-condition | L3SW is CISCO router  **-Configure on AP1**  ***“interface wifi0 mode backhual”***  ***“interface wifi0 radio channel 11”***  ***“interface wifi1 radio channel 40”***  **-Configure on AP2**  ***“interface wifi0 mode backhual”***  ***“interface wifi0 radio channel 11”***  ***“interface wifi1 radio channel 40”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Enable CDP on AP1/AP2  ***“lldp cdp”***  2.Open CDP debug switch to look up logs and show CDP neighbors’ status on AP1  ***“\_debug dcd cdp\_packet”***  ***“debug console”***  3.Disable wifiX CDP  ***“no interface wifiX link-discovery cdp”***  4.Look up logs and show CDP neighbors’ status on AP1  5.Recover  6.Look up logs and show CDP neighbors’ status on AP1  7.Modify inter wifiX’ mode to access  8.Look up logs and show CDP neighbors’ status on AP1 | | |
| Expect result | 2. AP has received CDP packets via wifiX and can display neighbors’ information correctly  4. AP cannot receive CDP packets via wifiX and cannot display any neighbors’ information  6. AP has received CDP packets via wifiX and can display neighbors’ information correctly  8. AP cannot receive CDP packets via wifiX (access mode) and cannot display any neighbors’ information | | |

##### Case ID CDP\_receive\_action\_6

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | CDP\_receive\_action\_6 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | CDP neighbors’ table can be cleared manually | | |
| Pre-condition | L3SW is CISCO router  **-Configure on AP1**  ***“lldp cdp”***  **-Configure on AP2**  ***“lldp cdp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1. Show CDP neighbors’ status on AP1  2. Clear CDP neighbors’ table  3. Show CDP neighbors’ status on AP1 | | |
| Expect result | 1.We can see the CISCO’s interface and AP2’s information correctly  2.We cannot see any CDP neighbors’ status  3.We can see the CISCO’s interface and AP2’s information correctly | | |

##### Case ID CDP\_receive\_action\_7

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | CDP\_receive\_action\_7 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | CDP packets cannot transmit through the AP | | |
| Pre-condition | L3SW is CISCO router  **-Configure on AP1**  ***“lldp cdp”***  **-Configure on AP2**  ***“lldp cdp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Open CDP debug switch to look up logs  ***“\_ff id 1 src-mac <mgt0-MAC> bidirectional”***  ***“\_debug dcd CDP\_packet”***  ***“\_kdebug fe basic”***  ***“\_kdebug fe detail”***  ***“debug console”*** | | |
| Expect result | 1.We can see the CDP packets from CISCO and AP2 can be captured by interface ethX , processed by AP and not sent out again | | |

### LLDP&CDP packet format test

##### Case ID LLDP\_packet\_format\_1

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_packet\_format\_1 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP packets’ destination MAC should be 01:80:c2:00:00:0e | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Open LLDP debug switch and capture the LLDP packets on AP1  ***“\_debug dcd LLDP\_packet”***  ***“debug console”*** | | |
| Expect result | 1.LLDP packets’ destination MAC should be 01:80:c2:00:00:0e  2011-12-14 08:16:19 debug ah\_dcd: [dcd\_lldp\_packet]: receive lldp packet, on this interface(eth0).  2011-12-14 08:16:19 debug ah\_dcd: receive LLDP packet:  2011-12-14 08:16:19 debug ah\_dcd: 4802e842 01 80 c2 00 00 0e 00 19 77 45 7f 80 88 cc 02 07 ........ wE......  2011-12-14 08:16:19 debug ah\_dcd: 4802e852 04 00 19 77 45 7f 80 04 05 05 6d 67 74 30 06 02 ...wE... ..mgt0..  2011-12-14 08:16:19 debug ah\_dcd: 4802e862 00 5a 0a 06 43 57 33 33 30 00 0e 04 00 0c 00 04 .Z..CW33 0.......  2011-12-14 08:16:19 debug ah\_dcd: 4802e872 10 0c 05 01 ac 10 74 8b 02 00 00 00 0b 00 fe 09 ......t. ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e882 00 12 0f 03 01 00 00 00 00 fe 06 00 12 0f 04 05 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e892 dc fe 07 00 12 bb 01 00 11 01 fe 07 00 12 bb 04 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e8a2 51 00 9a 00 00 | | |

##### Case ID LLDP\_packet\_format\_2

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_packet\_format\_2 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP packets’ source MAC should be the mac of interface sending lldp out | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  ***“hive caiw”***  ***“interface wifi1 radio channel 40”***  ***“interface mgt0 hive caiw”***  **-Configure on AP2**  ***“lldp”***  ***“hive caiw”***  ***“interface wifi1 radio channel 40”***  ***“interface mgt0 hive caiw”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Open LLDP debug switch on AP1  ***“\_debug dcd LLDP\_packet”***  ***“debug console”***  2.Capture the LLDP packets via ethX/WifiX on AP1 | | |
| Expect result | 2.LLDP packets’ source MAC should be the mac of interface sending lldp out  **AP1 log**  2011-12-14 08:16:29 debug ah\_dcd: [dcd\_lldp\_packet]: receive lldp packet, on this interface(eth0).  2011-12-14 08:16:29 debug ah\_dcd: receive LLDP packet:  2011-12-14 08:16:29 debug ah\_dcd: 4802e842 01 80 c2 00 00 0e 00 19 77 45 7f 80 88 cc 02 07 ........ wE......  2011-12-14 08:16:29 debug ah\_dcd: 4802e852 04 00 19 77 45 7f 80 04 05 05 6d 67 74 30 06 02 ...wE... ..mgt0..  2011-12-14 08:16:29 debug ah\_dcd: 4802e862 00 5a 0a 06 43 57 33 33 30 00 0e 04 00 0c 00 04 .Z..CW33 0.......  2011-12-14 08:16:29 debug ah\_dcd: 4802e872 10 0c 05 01 ac 10 74 8b 02 00 00 00 0b 00 fe 09 ......t. ........  2011-12-14 08:16:29 debug ah\_dcd: 4802e882 00 12 0f 03 01 00 00 00 00 fe 06 00 12 0f 04 05 ........ ........  2011-12-14 08:16:29 debug ah\_dcd: 4802e892 dc fe 07 00 12 bb 01 00 11 01 fe 07 00 12 bb 04 ........ ........  2011-12-14 08:16:29 debug ah\_dcd: 4802e8a2 51 00 9a 00 00 Q....  2011-12-14 08:16:29 debug ah\_dcd: updated LLDP node, node chassis id + node port id:  2011-12-14 08:16:29 debug ah\_dcd: 10382d1d 00 19 77 45 7f 80 6d 67 74 30 ..wE..mg t0  2011-12-14 08:16:29 debug ah\_dcd: [dcd\_lldp\_packet]: receive lldp packet, on this interface(wifi1.1).  2011-12-14 08:16:29 debug ah\_dcd: receive LLDP packet:  2011-12-14 08:16:29 debug ah\_dcd: 4802ec42 01 80 c2 00 00 0e 00 19 77 45 7f a0 88 cc 02 07 ........ wE......  2011-12-14 08:16:29 debug ah\_dcd: 4802ec52 04 00 19 77 45 7f 80 04 05 05 6d 67 74 30 06 02 ...wE... ..mgt0..  2011-12-14 08:16:29 debug ah\_dcd: 4802ec62 00 5a 0a 06 43 57 33 33 30 00 0e 04 00 0c 00 04 .Z..CW33 0.......  2011-12-14 08:16:29 debug ah\_dcd: 4802ec72 10 0c 05 01 ac 10 74 8b 02 00 00 00 0b 00 fe 09 ......t. ........  2011-12-14 08:16:29 debug ah\_dcd: 4802ec82 00 12 0f 03 01 00 00 00 00 fe 06 00 12 0f 04 05 ........ ........  2011-12-14 08:16:29 debug ah\_dcd: 4802ec92 dc 00 00 ...  2011-12-14 08:16:29 debug ah\_dcd: updated LLDP node, node chassis id + node port id:  2011-12-14 08:16:29 debug ah\_dcd: 10381805 00 19 77 45 7f 80 6d 67 74 30 ..wE..mg t0  **AP interface**  CW330#show interface  State=Operational state; Chan=Channel;  Radio=Radio profile; U=up; D=down;  Name MAC addr Mode State Chan VLAN Radio Hive SSID  ----------- -------------- -------- ----- ---- ---- ---------- ---------- ---------  Mgt0 0019:7745:7f80 - U - 26 - caiw -  Agg0 0019:7745:7f83 backhaul D - 26 - caiw -  Eth0 0019:7745:7f80 backhaul U - 26 - caiw -  Eth1 0019:7745:7f81 backhaul D - 26 - caiw -  Red0 0019:7745:7f82 backhaul D - 26 - caiw -  Wifi0 0019:7745:7f90 access U 11 - radio\_ng0 - -  Wifi0.1 0019:7745:7f90 access D 11 - radio\_ng0 caiw cw-330-1  Wifi1 0019:7745:7fa0 dual U 40 - radio\_na0 - -  Wifi1.1 0019:7745:7fa0 backhaul U 40 26 radio\_na0 caiw -  Wifi1.2 0019:7745:7fa1 access D 40 - radio\_na0 caiw cw-330-1 | | |

##### Case ID LLDP\_packet\_format\_3

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| --- | --- | --- | --- |
| Case ID | LLDP\_packet\_format\_3 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP packets’ type should be 0x88cc | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Open LLDP debug switch on AP1  ***“\_debug dcd LLDP\_packet”***  ***“debug console”***  2.Capture the LLDP packets on AP1 | | |
| Expect result | 2. LLDP packets’ type should be 0x88cc  2011-12-14 08:16:19 debug ah\_dcd: [dcd\_lldp\_packet]: receive lldp packet, on this interface(eth0).  2011-12-14 08:16:19 debug ah\_dcd: receive LLDP packet:  2011-12-14 08:16:19 debug ah\_dcd: 4802e842 01 80 c2 00 00 0e 00 19 77 45 7f 80 88 cc 02 07 ........ wE......  2011-12-14 08:16:19 debug ah\_dcd: 4802e852 04 00 19 77 45 7f 80 04 05 05 6d 67 74 30 06 02 ...wE... ..mgt0..  2011-12-14 08:16:19 debug ah\_dcd: 4802e862 00 5a 0a 06 43 57 33 33 30 00 0e 04 00 0c 00 04 .Z..CW33 0.......  2011-12-14 08:16:19 debug ah\_dcd: 4802e872 10 0c 05 01 ac 10 74 8b 02 00 00 00 0b 00 fe 09 ......t. ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e882 00 12 0f 03 01 00 00 00 00 fe 06 00 12 0f 04 05 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e892 dc fe 07 00 12 bb 01 00 11 01 fe 07 00 12 bb 04 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e8a2 51 00 9a 00 00 | | |

##### Case ID LLDP\_packet\_format\_4

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_packet\_format\_4 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP packets’ chassis ID should be Mgt0’s mac | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Open LLDP debug switch on AP1  ***“\_debug dcd LLDP\_packet”***  ***“debug console”***  2.Capture the LLDP packets on AP1 | | |
| Expect result | 2. LLDP packets’ chassis ID should be AP2’s mgt0 MAC  2011-12-14 08:16:19 debug ah\_dcd: [dcd\_lldp\_packet]: receive lldp packet, on this interface(eth0).  2011-12-14 08:16:19 debug ah\_dcd: receive LLDP packet:  2011-12-14 08:16:19 debug ah\_dcd: 4802e842 01 80 c2 00 00 0e 00 19 77 45 7f 80 88 cc 02 07 ........ wE......  2011-12-14 08:16:19 debug ah\_dcd: 4802e852 04 00 19 77 45 7f 80 04 05 05 6d 67 74 30 06 02 ...wE... ..mgt0..  2011-12-14 08:16:19 debug ah\_dcd: 4802e862 00 5a 0a 06 43 57 33 33 30 00 0e 04 00 0c 00 04 .Z..CW33 0.......  2011-12-14 08:16:19 debug ah\_dcd: 4802e872 10 0c 05 01 ac 10 74 8b 02 00 00 00 0b 00 fe 09 ......t. ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e882 00 12 0f 03 01 00 00 00 00 fe 06 00 12 0f 04 05 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e892 dc fe 07 00 12 bb 01 00 11 01 fe 07 00 12 bb 04 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e8a2 51 00 9a 00 00 | | |

##### Case ID LLDP\_packet\_format\_5

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_packet\_format\_5 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP packets’ port id should be the interface sending lldp out | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  ***“hive caiw”***  ***“interface wifi1 radio channel 40”***  ***“interface mgt0 hive caiw”***  **-Configure on AP2**  ***“lldp”***  ***“hive caiw”***  ***“interface wifi1 radio channel 40”***  ***“interface mgt0 hive caiw”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Open LLDP debug switch on AP1  ***“\_debug dcd LLDP\_packet”***  ***“debug console”***  2.Capture the LLDP packets via ethX/WifiX on AP1 | | |
| Expect result | 2. LLDP packets’ port id should be the interface sending lldp out  **AP1 log**  2011-12-14 08:16:29 debug ah\_dcd: [dcd\_lldp\_packet]: receive lldp packet, on this interface(eth0).  2011-12-14 08:16:29 debug ah\_dcd: receive LLDP packet:  2011-12-14 08:16:29 debug ah\_dcd: 4802e842 01 80 c2 00 00 0e 00 19 77 45 7f 80 88 cc 02 07 ........ wE......  2011-12-14 08:16:29 debug ah\_dcd: 4802e852 04 00 19 77 45 7f 80 04 05 05 6d 67 74 30 06 02 ...wE... ..mgt0..  2011-12-14 08:16:29 debug ah\_dcd: 4802e862 00 5a 0a 06 43 57 33 33 30 00 0e 04 00 0c 00 04 .Z..CW33 0.......  2011-12-14 08:16:29 debug ah\_dcd: 4802e872 10 0c 05 01 ac 10 74 8b 02 00 00 00 0b 00 fe 09 ......t. ........  2011-12-14 08:16:29 debug ah\_dcd: 4802e882 00 12 0f 03 01 00 00 00 00 fe 06 00 12 0f 04 05 ........ ........  2011-12-14 08:16:29 debug ah\_dcd: 4802e892 dc fe 07 00 12 bb 01 00 11 01 fe 07 00 12 bb 04 ........ ........  2011-12-14 08:16:29 debug ah\_dcd: 4802e8a2 51 00 9a 00 00 Q....  2011-12-14 08:16:29 debug ah\_dcd: updated LLDP node, node chassis id + node port id:  2011-12-14 08:16:29 debug ah\_dcd: 10382d1d 00 19 77 45 7f 80 6d 67 74 30 ..wE..mg t0  2011-12-14 08:16:29 debug ah\_dcd: [dcd\_lldp\_packet]: receive lldp packet, on this interface(wifi1.1).  2011-12-14 08:16:29 debug ah\_dcd: receive LLDP packet:  2011-12-14 08:16:29 debug ah\_dcd: 4802ec42 01 80 c2 00 00 0e 00 19 77 45 7f a0 88 cc 02 07 ........ wE......  2011-12-14 08:16:29 debug ah\_dcd: 4802ec52 04 00 19 77 45 7f 80 04 05 05 6d 67 74 30 06 02 ...wE... ..mgt0..  2011-12-14 08:16:29 debug ah\_dcd: 4802ec62 00 5a 0a 06 43 57 33 33 30 00 0e 04 00 0c 00 04 .Z..CW33 0.......  2011-12-14 08:16:29 debug ah\_dcd: 4802ec72 10 0c 05 01 ac 10 74 8b 02 00 00 00 0b 00 fe 09 ......t. ........  2011-12-14 08:16:29 debug ah\_dcd: 4802ec82 00 12 0f 03 01 00 00 00 00 fe 06 00 12 0f 04 05 ........ ........  2011-12-14 08:16:29 debug ah\_dcd: 4802ec92 dc 00 00 ...  2011-12-14 08:16:29 debug ah\_dcd: updated LLDP node, node chassis id + node port id:  2011-12-14 08:16:29 debug ah\_dcd: 10381805 00 19 77 45 7f 80 6d 67 74 30 ..wE..mg t0 | | |

##### Case ID LLDP\_packet\_format\_6

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| --- | --- | --- | --- |
| Case ID | LLDP\_packet\_format\_6 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP packets’ Time To Live should be the hold time of the lldp | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Open LLDP debug switch on AP1  ***“\_debug dcd LLDP\_packet”***  ***“debug console”***  2.Capture the LLDP packets on AP1  3.Modify hold time to 10s on AP2  4.Capture the LLDP packets on AP1  5.Modify hold time to 255s on AP2  6.Capture the LLDP packets on AP1 | | |
| Expect result | 2. LLDP packets’ Time To Live should be the default hold time(90s)  2011-12-14 08:16:19 debug ah\_dcd: [dcd\_lldp\_packet]: receive lldp packet, on this interface(eth0).  2011-12-14 08:16:19 debug ah\_dcd: receive LLDP packet:  2011-12-14 08:16:19 debug ah\_dcd: 4802e842 01 80 c2 00 00 0e 00 19 77 45 7f 80 88 cc 02 07 ........ wE......  2011-12-14 08:16:19 debug ah\_dcd: 4802e852 04 00 19 77 45 7f 80 04 05 05 6d 67 74 30 06 02 ...wE... ..mgt0..  2011-12-14 08:16:19 debug ah\_dcd: 4802e862 00 5a 0a 06 43 57 33 33 30 00 0e 04 00 0c 00 04 .Z..CW33 0.......  2011-12-14 08:16:19 debug ah\_dcd: 4802e872 10 0c 05 01 ac 10 74 8b 02 00 00 00 0b 00 fe 09 ......t. ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e882 00 12 0f 03 01 00 00 00 00 fe 06 00 12 0f 04 05 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e892 dc fe 07 00 12 bb 01 00 11 01 fe 07 00 12 bb 04 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e8a2 51 00 9a 00 00  4. LLDP packets’ Time To Live should be 10s  6. LLDP packets’ Time To Live should be 255s | | |

##### Case ID LLDP\_packet\_format\_7

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| --- | --- | --- | --- |
| Case ID | LLDP\_packet\_format\_7 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP packets’ system name should be AP’s hostname | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Open LLDP debug switch on AP1  ***“\_debug dcd LLDP\_packet”***  ***“debug console”***  2.Capture the LLDP packets on AP1  3.Modify hostname to XXX on AP2  4.Capture the LLDP packets on AP1 | | |
| Expect result | 2. LLDP packets’ system name should be AP’s hostname  2011-12-14 08:16:19 debug ah\_dcd: [dcd\_lldp\_packet]: receive lldp packet, on this interface(eth0).  2011-12-14 08:16:19 debug ah\_dcd: receive LLDP packet:  2011-12-14 08:16:19 debug ah\_dcd: 4802e842 01 80 c2 00 00 0e 00 19 77 45 7f 80 88 cc 02 07 ........ wE......  2011-12-14 08:16:19 debug ah\_dcd: 4802e852 04 00 19 77 45 7f 80 04 05 05 6d 67 74 30 06 02 ...wE... ..mgt0..  2011-12-14 08:16:19 debug ah\_dcd: 4802e862 00 5a 0a 06 43 57 33 33 30 00 0e 04 00 0c 00 04 .Z..CW33 0.......  2011-12-14 08:16:19 debug ah\_dcd: 4802e872 10 0c 05 01 ac 10 74 8b 02 00 00 00 0b 00 fe 09 ......t. ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e882 00 12 0f 03 01 00 00 00 00 fe 06 00 12 0f 04 05 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e892 dc fe 07 00 12 bb 01 00 11 01 fe 07 00 12 bb 04 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e8a2 51 00 9a 00 00  AP2’s hostname is CW330  4. LLDP packets’ system name should be XXX | | |

##### Case ID LLDP\_packet\_format\_8

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| Case ID | LLDP\_packet\_format\_8 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP packets’ system capability should be Bridge/wireless access point | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Open LLDP debug switch on AP1  ***“\_debug dcd LLDP\_packet”***  ***“debug console”***  2.Capture the LLDP packets on AP1  3.Enable ssid on AP2  4.Capture the LLDP packets on AP1 | | |
| Expect result | 2. LLDP packets’ system capability should be Bridge  2011-12-14 08:16:19 debug ah\_dcd: [dcd\_lldp\_packet]: receive lldp packet, on this interface(eth0).  2011-12-14 08:16:19 debug ah\_dcd: receive LLDP packet:  2011-12-14 08:16:19 debug ah\_dcd: 4802e842 01 80 c2 00 00 0e 00 19 77 45 7f 80 88 cc 02 07 ........ wE......  2011-12-14 08:16:19 debug ah\_dcd: 4802e852 04 00 19 77 45 7f 80 04 05 05 6d 67 74 30 06 02 ...wE... ..mgt0..  2011-12-14 08:16:19 debug ah\_dcd: 4802e862 00 5a 0a 06 43 57 33 33 30 00 0e 04 00 0c 00 04 .Z..CW33 0.......  2011-12-14 08:16:19 debug ah\_dcd: 4802e872 10 0c 05 01 ac 10 74 8b 02 00 00 00 0b 00 fe 09 ......t. ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e882 00 12 0f 03 01 00 00 00 00 fe 06 00 12 0f 04 05 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e892 dc fe 07 00 12 bb 01 00 11 01 fe 07 00 12 bb 04 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e8a2 51 00 9a 00 00  4. LLDP packets’ system capability should be Bridge and Wlan access point | | |

##### Case ID LLDP\_packet\_format\_9

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| --- | --- | --- | --- |
| Case ID | LLDP\_packet\_format\_9 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP packets’ management address should be mgt0’s IPaddr | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Open LLDP debug switch on AP1  ***“\_debug dcd LLDP\_packet”***  ***“debug console”***  2.Capture the LLDP packets on AP1  3.Modify mgt0’IP to fixed IP(X.X.X.X) on AP2  4.Capture the LLDP packets on AP1 | | |
| Expect result | 2. LLDP packets’ management address should be mgt0’s IPaddr  2011-12-14 08:16:19 debug ah\_dcd: [dcd\_lldp\_packet]: receive lldp packet, on this interface(eth0).  2011-12-14 08:16:19 debug ah\_dcd: receive LLDP packet:  2011-12-14 08:16:19 debug ah\_dcd: 4802e842 01 80 c2 00 00 0e 00 19 77 45 7f 80 88 cc 02 07 ........ wE......  2011-12-14 08:16:19 debug ah\_dcd: 4802e852 04 00 19 77 45 7f 80 04 05 05 6d 67 74 30 06 02 ...wE... ..mgt0..  2011-12-14 08:16:19 debug ah\_dcd: 4802e862 00 5a 0a 06 43 57 33 33 30 00 0e 04 00 0c 00 04 .Z..CW33 0.......  2011-12-14 08:16:19 debug ah\_dcd: 4802e872 10 0c 05 01 ac 10 74 8b 02 00 00 00 0b 00 fe 09 ......t. ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e882 00 12 0f 03 01 00 00 00 00 fe 06 00 12 0f 04 05 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e892 dc fe 07 00 12 bb 01 00 11 01 fe 07 00 12 bb 04 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e8a2 51 00 9a 00 00  4. LLDP packets’ management address should be X.X.X.X | | |

##### Case ID LLDP\_packet\_format\_10

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| --- | --- | --- | --- |
| Case ID | LLDP\_packet\_format\_10 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP packets’ Link Aggregation should be AP’s aggregation status | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Open LLDP debug switch on AP1  ***“\_debug dcd LLDP\_packet”***  ***“debug console”***  2.Capture the LLDP packets on AP1  3.Bind eth0 and eth1 to agg0 in AP2  4.Capture the LLDP packets on AP1 | | |
| Expect result | 2. LLDP packets’ Link Aggregation should be Not enable  2011-12-14 08:16:19 debug ah\_dcd: [dcd\_lldp\_packet]: receive lldp packet, on this interface(eth0).  2011-12-14 08:16:19 debug ah\_dcd: receive LLDP packet:  2011-12-14 08:16:19 debug ah\_dcd: 4802e842 01 80 c2 00 00 0e 00 19 77 45 7f 80 88 cc 02 07 ........ wE......  2011-12-14 08:16:19 debug ah\_dcd: 4802e852 04 00 19 77 45 7f 80 04 05 05 6d 67 74 30 06 02 ...wE... ..mgt0..  2011-12-14 08:16:19 debug ah\_dcd: 4802e862 00 5a 0a 06 43 57 33 33 30 00 0e 04 00 0c 00 04 .Z..CW33 0.......  2011-12-14 08:16:19 debug ah\_dcd: 4802e872 10 0c 05 01 ac 10 74 8b 02 00 00 00 0b 00 fe 09 ......t. ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e882 00 12 0f 03 01 00 00 00 00 fe 06 00 12 0f 04 05 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e892 dc fe 07 00 12 bb 01 00 11 01 fe 07 00 12 bb 04 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e8a2 51 00 9a 00 00  2. LLDP packets’ Link Aggregation should be Enable | | |

##### Case ID LLDP\_packet\_format\_11

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| --- | --- | --- | --- |
| Case ID | LLDP\_packet\_format\_11 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP packets’ maximum frame size should be mgt0’s MTU | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Open LLDP debug switch on AP1  ***“\_debug dcd LLDP\_packet”***  ***“debug console”***  2.Capture the LLDP packets on AP1  3.Modify the mtu to 100  ***“interface mgt0 mtu 100”***  4.Capture the LLDP packets on AP1 | | |
| Expect result | 2. LLDP packets’ maximum frame size should be 1500(default mtu)  2011-12-14 08:16:19 debug ah\_dcd: [dcd\_lldp\_packet]: receive lldp packet, on this interface(eth0).  2011-12-14 08:16:19 debug ah\_dcd: receive LLDP packet:  2011-12-14 08:16:19 debug ah\_dcd: 4802e842 01 80 c2 00 00 0e 00 19 77 45 7f 80 88 cc 02 07 ........ wE......  2011-12-14 08:16:19 debug ah\_dcd: 4802e852 04 00 19 77 45 7f 80 04 05 05 6d 67 74 30 06 02 ...wE... ..mgt0..  2011-12-14 08:16:19 debug ah\_dcd: 4802e862 00 5a 0a 06 43 57 33 33 30 00 0e 04 00 0c 00 04 .Z..CW33 0.......  2011-12-14 08:16:19 debug ah\_dcd: 4802e872 10 0c 05 01 ac 10 74 8b 02 00 00 00 0b 00 fe 09 ......t. ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e882 00 12 0f 03 01 00 00 00 00 fe 06 00 12 0f 04 05 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e892 dc fe 07 00 12 bb 01 00 11 01 fe 07 00 12 bb 04 ........ ........  2011-12-14 08:16:19 debug ah\_dcd: 4802e8a2 51 00 9a 00 00  4. LLDP packets’ maximum frame size should be 100 | | |

##### Case ID LLDP\_packet\_format\_12

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| --- | --- | --- | --- |
| Case ID | LLDP\_packet\_format\_12 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP packets’ Media Capabilities test | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Open LLDP debug switch on AP1  ***“\_debug dcd LLDP\_packet”***  ***“debug console”***  2.Capture the LLDP packets on AP1 | | |
| Expect result | 2. LLDP packet’ media capabilities is LLDP Med enable | | |

##### Case ID LLDP\_packet\_format\_13

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| --- | --- | --- | --- |
| Case ID | LLDP\_packet\_format\_13 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP packets’ Extended Power test | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Open LLDP debug switch on AP1  ***“\_debug dcd LLDP\_packet”***  ***“debug console”***  2.Capture the LLDP packets on AP1  3.Modify max-power to 1  4.Capture the LLDP packets on AP1  5.Modify max-power to 250  6.Capture the LLDP packets on AP1 | | |
| Expect result | 2. LLDP packet’ Extended Power is 15400mw  4. LLDP packet’ Extended Power is 100mw  6. LLDP packet’ Extended Power is 25000mw | | |

##### Case ID LLDP\_packet\_format\_14

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_packet\_format\_14 | | |
| Priority | Low | Automation Flag | No |
| Topology to use | Topology1 | | |
| Description | LLDP packets’ End LLDPPDU test | | |
| Pre-condition | L3SW is H3C router  **-Configure on AP1**  ***“lldp”***  **-Configure on AP2**  ***“lldp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Open LLDP debug switch on AP1  ***“\_debug dcd LLDP\_packet”***  ***“debug console”***  2.Capture the LLDP packets on AP1 | | |
| Expect result | 2. LLDP packet’ End LLDPPDU is 0000 | | |

### LLDP&CDP negative test

##### Case ID LLDP&CDP\_negative\_1

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_CDP\_negative\_1 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology4 | | |
| Description | LLDP&CDP status when the process dcd has been killed | | |
| Pre-condition | **-Configure on AP1**  ***“lldp”***  ***“lldp cdp”***  **-Configure on AP2**  ***“lldp”***  ***“lldp cdp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Show lldp/cdp neighbors’ status on AP1  2.Open lldp/cdp debug switch and look up logs on AP1  ***“\_debug dcd lldp\_packet”***  ***“\_debug dcd cdp\_packet”***  ***“debug console”***  3.Kill process dcd in shell  ***“\_shell”***  ***“killall -9 ah\_dcd”***  4.Show lldp/cdp neighbors’ status on AP1  5.look up logs on AP1 | | |
| Expect result | 1.We can see the H3C’s interface and AP2’s information correctly  2.AP can receive/send lldp/cdp packets successfully  3.We can see the H3C’s interface and AP2’s information correctly  4.AP can receive/send lldp/cdp packets successfully | | |

## Stress Test Case

## Duration Test Case

## Performance Test Case

## Scalability Test Case

## Compatibility Test Case

##### Case ID LLDP&CDP\_compatibility\_1

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | LLDP\_CDP\_compatibility\_11 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use | Topology4 | | |
| Description | LLDP&CDP enabled on the APs connecting to H3C and Cisco can detect neighbors’ info correctly | | |
| Pre-condition | **-Configure on AP1**  ***“lldp”***  ***“lldp cdp”***  **-Configure on AP2**  ***“lldp”***  ***“lldp cdp”***  AP1 and AP2 is in the same vlan | | |
| Test procedure | 1.Show lldp neighbors’ status on AP1  ***“show lldp neighbor”***  2.Show lldp neighbors’ status on AP2  ***“show lldp neighbor”***  3. Show lldp neighbors’ status on H3C  ***“display lldp neighbor-information interface <H3C inter>”***  4.Show lldp neighbors’ status on AP1  ***“show lldp cdp neighbor”***  5.Show lldp neighbors’ status on AP2  ***“show lldp cdp neighbor”*** | | |
| Expect result | 1.We can see the H3C’s interface and AP2’s information correctly  2.We can see the H3C’s interface and AP1’s information correctly  3.We can see the AP1’s interface and AP2’s information correctly  4.We can see the Cisco’s interface and AP2’s information correctly  5.We can see the Cisco’s interface and AP1’s information correctly | | |

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

CW350#interface eth0 link-discovery

cdp Set CDP (Cisco Discovery Protocol) parameters on the interface

lldp Set LLDP (Link Layer Discovery Protocol) parameters on the

interface

## GUI Management-HiveManager

<List HM test case or test log>

## GUI Management-HiveUI

<List HiveUI test case or test log>