Aerohive Networks Inc.

DFS support test case

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Author | Description |
| 0.9 | 11/28/2008 | LiangfuZhang | Initial version |
|  |  |  |  |
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|  |  |  |  |

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<Descript this feature in high level>

# Test point or strategy

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## check default DFS status

## Check channel list when dfs is enable (FCC country)

## Check channel list when dfs is disable (FCC country)

## Check channel list when dfs is enable (Europe country)

## Check channel list when dfs is disable (Europe country)

## Test channel list in all countries ( FCC and EU) 31 countries

Scripts:

EU 29 countries:

Country Country code:

1. Austria 40
2. Belgium 56
3. Czech Rep 203
4. Cyprus 196
5. Denmark 208
6. Estonia 233
7. Finland 246
8. France 250
9. Germany 276
10. Greece 300
11. Hungary 348
12. Iceland 352
13. Ireland 372
14. Italy 380
15. Latvia 428
16. Liechtenstein 438
17. Lithuania 440
18. Luxembourg 442
19. Malta 470
20. Netherlands 528
21. Norway 578
22. Poland 616
23. Portugal 620
24. Slovenia 705
25. Spain 724
26. Sweden 752
27. Switzerland 756
28. UK 826

Test step:

1. Initial configuration:

*Radio profile aaa*

*Radio profile aaa ph 11na*

*Radio profile aaa acsp access dfs*

*Int wifi1 radio profile aaa*

1. Change country code to above country (and reboot)
2. Check channel list:

*Show int wifi1 channel*

The result should be:

AH-030e80#sh int wifi1 channel

Channel 1 : 2412 Mhz 11ng 20 40U Channel 48 : 5240\* Mhz 11na 20

Channel 2 : 2417 Mhz 11ng 20 40U Channel 52 : 5260\* Mhz 11na 20 DFS

Channel 3 : 2422 Mhz 11ng 20 40U Channel 56 : 5280\* Mhz 11na 20 DFS

Channel 4 : 2427 Mhz 11ng 20 40U Channel 60 : 5300\* Mhz 11na 20 DFS

Channel 5 : 2432 Mhz 11ng 20 40U 40L Channel 64 : 5320\* Mhz 11na 20 DFS

Channel 6 : 2437 Mhz 11ng 20 40U 40L Channel 100 : 5500\* Mhz 11na 20 DFS

Channel 7 : 2442 Mhz 11ng 20 40U 40L Channel 104 : 5520\* Mhz 11na 20 DFS

Channel 8 : 2447 Mhz 11ng 20 40U 40L Channel 108 : 5540\* Mhz 11na 20 DFS

Channel 9 : 2452 Mhz 11ng 20 40U 40L Channel 112 : 5560\* Mhz 11na 20 DFS

Channel 10 : 2457 Mhz 11ng 20 40L Channel 116 : 5580\* Mhz 11na 20 DFS

Channel 11 : 2462 Mhz 11ng 20 40L Channel 120 : 5600\* Mhz 11na 20 DFS

Channel 12 : 2467 Mhz 11ng 20 40L Channel 124 : 5620\* Mhz 11na 20 DFS

Channel 13 : 2472 Mhz 11ng 20 40L Channel 128 : 5640\* Mhz 11na 20 DFS

Channel 36 : 5180\* Mhz 11na 20 Channel 132 : 5660\* Mhz 11na 20 DFS

Channel 40 : 5200\* Mhz 11na 20 Channel 136 : 5680\* Mhz 11na 20 DFS

Channel 44 : 5220\* Mhz 11na 20 Channel 140 : 5700\* Mhz 11na 20 DFS

## DFS should be only supported in Europe countries for 3.4 version

## ~~DFS channel is only supported when wifi1 is in access mode~~

## Do acsp test with four APs when dfs channel is enabled

## Check if box will do active scan in DFS channel

## Do DFS test when no client.

## Do DFS test when client connected to AP.

## Check if AP will send out channel change information.

## Check how AP select channel after it find radar, low cost or random channel

## If acsp is manual, AP should change channel to the channel manual set after it found radar 30 minutes ago.

## Check if AP switch channel when encounter radar in static channel

## Check if AP switch channel when CLI “radar-detect-only” enable

## Check 120-128 channel 10 minutes CAC time especially for mesh.

# Topology

<List all topology used in your case if you have>

# TestCase

## CLI check: radio profile <name> dfs

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_CLI\_1 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use |  | | |
| Description | Check if dfs channel can be enabled. | | |
| Pre-condition |  | | |
| Test procedure | 1.creat radio profile aaa.mode 11na.bind on wifi1.  “radio profile aaa”  “radio profile aaa phymode 11na”  “interface wifi1 radio profile aaa”  2.check if dfs channel can be enabled.  “radio profile aaa dfs”  “show running config” | | |
| Expect result | Dfs channel can be enabled. | | |

## CLI check: no radio profile <name> dfs

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_CLI\_2 | | |
| Priority | Middle | Automation Flag | No |
| Topology to use |  | | |
| Description | Check if dfs channel can be disabled. | | |
| Pre-condition |  | | |
| Test procedure | 1.creat radio profile aaa.mode 11na.bind on wifi1.  “radio profile aaa”  “radio profile aaa phymode 11na”  “interface wifi1 radio profile aaa”  2.enble dfs channel.  “radio profile aaa dfs”  3.check if dfs channel can be disabled.  “no radio profile aaa dfs”  “show running config” | | |
| Expect result | Dfs channel can be disabled. | | |

## Check default dfs status

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_3 | | |
| Priority | High | Automation Flag | No |
| Topology to use |  | | |
| Description | check default DFS status | | |
| Pre-condition |  | | |
| Test procedure | 1. Reset configure 2. Set AP country code to 826 3. Login AP, check dfs default status:   Show int wifi1  Show int wifi1 channel   1. Change wifi1 mode to access, create ssid and bind to wifi1 2. Check dfs status:   Show int wifi1  Show int wifi1 channel | | |
| Expect result |  | | |

## Check channel list when dfs is enable(FCC country)

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_4 | | |
| Priority | High | Automation Flag | No |
| Topology to use |  | | |
| Description | Check channel list when dfs is enable (FCC country) | | |
| Pre-condition | Set wifi1 mode to access mode  Create ssid and bind to wifi1 | | |
| Test procedure | 1. Set country code to 840 2. Enable dfs 3. Check channel list:   *Show int wifi1 channel* | | |
| Expect result | Wifi1 should include dfs channel in FCC. | | |

## Check channel list when dfs is disable(FCC country)

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_5 | | |
| Priority | High | Automation Flag | No |
| Topology to use |  | | |
| Description | Check channel list when dfs is disable (FCC country) | | |
| Pre-condition | Set wifi1 mode to access mode  Create ssid and bind to wifi1 | | |
| Test procedure | 1. Set country code to 840 2. disable dfs 3. Check channel list:   *Show int wifi1 channel* | | |
| Expect result | Wifi1 should exclude dfs channel in FCC. | | |

## Check channel list when dfs is enable(Europe country)

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_6 | | |
| Priority | Accept | Automation Flag | No |
| Topology to use |  | | |
| Description | Check channel list when dfs is enable (Europe country) | | |
| Pre-condition | Set wifi1 mode to access mode  Create ssid and bind to wifi1 | | |
| Test procedure | 1. Set country code to 826 2. Enable dfs 3. Check channel list:   *Show int wifi1 channel* | | |
| Expect result | Wifi1 should include dfs channel in Europe country. | | |

## Check channel list when dfs is disable(Europe country)

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_7 | | |
| Priority | Accept | Automation Flag | No |
| Topology to use |  | | |
| Description | Check channel list when dfs is disable (Europe country) | | |
| Pre-condition | Set wifi1 mode to access mode  Create ssid and bind to wifi1 | | |
| Test procedure | 1. Set country code to 826 2. Disable dfs 3. Check channel list:   *Show int wifi1 channel* | | |
| Expect result | Wifi1 should exclude dfs channel in Europe country. | | |

## Check channel list in all Europe 31 countries

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_8 | | |
| Priority | Accept | Automation Flag | No |
| Topology to use |  | | |
| Description | Test channel list in all countries ( FCC and EU) 31 countries | | |
| Pre-condition | **Radio profile aaa**  **Radio profile aaa phymode 11na**  **Radio profile aaa dfs**  **Interface wifi1 radio profile aaa** | | |
| Test procedure | **Change country code to above country (and reboot)**  **Check channel list:**  *Show int wifi1 channel* | | |
| Expect result | Wifi1 channel should be correct. | | |

## Backhaul mode should support dfs channel

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_9 | | |
| Priority | Accept | Automation Flag | No |
| Topology to use |  | | |
| Description | Backhaul mode should support dfs channel. | | |
| Pre-condition | Set wifi1 mode to backhaul mode  Set country code to 826 | | |
| Test procedure | 1. enable dfs 2. Check channel list, dfs supported in backhaul mode   *Show int wifi1 channel* | | |
| Expect result | Backhaul mode should support dfs channe. | | |

## Do acsp test with four APs when dfs channel enabled

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_10 | | |
| Priority | High | Automation Flag | No |
| Topology to use | Four aps | | |
| Description | Do acsp test with four APs when dfs channel enabled. | | |
| Pre-condition | Set wifi1 mode to access  Creat a ssid on 4 ap respectively,and bind to wifi1.  Set country code to 826 | | |
| Test procedure | 1. enable dfs 2. reboot four aps at one time 3. check acsp | | |
| Expect result | When AP select channel after reboot,dfs channel should be scaned.if AP select a dfs channel,it should “DFS CAC” befor enter listen state.channel 120/124/128 for 10 minutes,and other dfs channel for 1 minute. | | |

## check bgscan in dfs channel

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_11 | | |
| Priority | High | Automation Flag | No |
| Topology to use |  | | |
| Description | check bgscan in dfs channel | | |
| Pre-condition | Set wifi1 mode to access  Creat a ssid,bind to wifi1.  Set country code to 826  Set wifi1 bgscan interval to 1 minute | | |
| Test procedure | 1. enable dfs 2. open bgscan debug:   \_kdebug wifi-driver-wifi1.1 scan  Debug console   1. check active or passive scan in dfs channel | | |
| Expect result | Passive scan in dfs channel  “show logging buffered | include passive” | | |

## do dfs test when no client

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_12 | | |
| Priority | High | Automation Flag | No |
| Topology to use |  | | |
| Description | Check if box will switch dfs channel after encounter radar when no client | | |
| Pre-condition | Set wifi1 mode to access  Creat a ssid,bind to wifi1.  Set country code to 826 | | |
| Test procedure | 1. enable dfs 2. set wifi1 channel to dfs channel 3. simulate dfs with cli:   int wifi1 \_bang   1. check if box will switch channel | | |
| Expect result | Box will switch channel. | | |

## do dfs test when client connect to AP

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_13 | | |
| Priority | High | Automation Flag | No |
| Topology to use |  | | |
| Description | Check if box will switch dfs channel after encounter radar when there is client. | | |
| Pre-condition | Set wifi1 mode to access  Creat a ssid,bind to wifi1.  Set country code to 826 | | |
| Test procedure | 1. enable dfs 2. set wifi1 channel to dfs channel,there is a client. 3. simulate dfs with cli:   int wifi1 \_bang   1. check if box will switch channel | | |
| Expect result | Box will switch channel. | | |

## Check if AP will send out channel change information.

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_14 | | |
| Priority | High | Automation Flag | No |
| Topology to use |  | | |
| Description | Check if AP will send out channel change information. | | |
| Pre-condition | Set wifi1 mode to access  Creat a ssid,bind to wifi1.  Set country code to 826 | | |
| Test procedure | 1. enable dfs 2. set wifi1 channel to dfs channel 3. simulate dfs with cli:   int wifi1 \_bang   1. check if box will switch channel 2. Check if AP will send out channel change information. | | |
| Expect result | Box will switch channel.and send out channel change information. | | |

## Check how AP select channel after it find radar, low cost or random channel.

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_15 | | |
| Priority | High | Automation Flag | No |
| Topology to use |  | | |
| Description | Check how AP select channel after it find radar, low cost or random channel. | | |
| Pre-condition | Set wifi1 mode to access  Creat a ssid,bind to wifi1.  Set country code to 826 | | |
| Test procedure | 1. enable dfs 2. set wifi1 channel to dfs channel 3. simulate dfs with cli:   int wifi1 \_bang   1. check if box will switch channel 2. Check how AP select channel after it find radar, low cost or random channel 3. Check AP select channel according table:”show acsp channel” | | |
| Expect result | Box will switch channel.and send out channel change information. AP select channel of lowest cost. | | |

## If acsp is manual, AP should change channel to the channel manual set after it found radar 30 minutes ago.

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_16 | | |
| Priority | High | Automation Flag | No |
| Topology to use |  | | |
| Description | If acsp is manual, AP should change channel to the channel manual set after it found radar 30 minutes ago. | | |
| Pre-condition | Set wifi1 mode to access  Creat a ssid,bind to wifi1.  Set country code to 826 | | |
| Test procedure | 1. enable dfs 2. set wifi1 channel to dfs channel 3. simulate dfs with cli:   int wifi1 \_bang   1. show acsp check if box will switch channel 2. after 30 minutes,Check if AP change channel to the channel manual set | | |
| Expect result | AP should change channel to the channel manual set after it found radar 30 minutes ago. | | |

## Check if AP switch channel when encounter radar in static channel

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_17 | | |
| Priority | High | Automation Flag | No |
| Topology to use |  | | |
| Description | Check if AP switch channel when encounter radar in static channel | | |
| Pre-condition | Set wifi1 mode to access  Creat a ssid,bind to wifi1.  Set country code to 826 | | |
| Test procedure | 1. enable dfs 2. set wifi1 channel to dfs channel 3. simulate dfs with cli:   int wifi1 \_bang   1. Check if AP switch channel when encounter radar in static channel. | | |
| Expect result | AP should switch channel when encounter radar. | | |

## Check if AP switch channel when CLI “radar-detect-only” enable

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_18 | | |
| Priority | High | Automation Flag | No |
| Topology to use |  | | |
| Description | Check if AP switch channel when CLI “radar-detect-only” enable | | |
| Pre-condition | Set wifi1 mode to access  Creat a ssid,bind to wifi1.  Set country code to 826 | | |
| Test procedure | 1. enable dfs 2. set wifi1 channel to dfs channel 3. enable “radar-detect-only” 4. simulate dfs with cli:   int wifi1 \_bang   1. Check if AP switch channel when CLI “radar-detect-only” enable | | |
| Expect result | AP should not switch channel when encounter radar after “radar-detect-only” enable. | | |

## Check 120-128 channel 10 minutes CAC time especially for mesh.

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_19 | | |
| Priority | High | Automation Flag | No |
| Topology to use | ----------------------  | |  AP1 AP2 | | |
| Description | Check 120-128 channel 10 minutes CAC time especially for mesh. | | |
| Pre-condition | AP1/AP2 wifi1 backhual mode. | | |
| Test procedure | 1. enable dfs on AP1/AP2. 2. set AP1 wifi1 channel to 120/124/128. 3. Shutdown AP2’s eth0. 4. AP2 mesh with AP1,check AP2 will wait 10 minutes for cac time. | | |
| Expect result | AP2 should wait 10 minutes for cac time. | | |

## Check every country our ap support wifi channel.

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | DFS\_Function\_20 | | |
| Priority | High | Automation Flag | No |
| Topology to use |  | | |
| Description | Check every country our ap support wifi0&wifi1 channel on AP120/141/170/340/350/BR100/BR200. | | |
| Pre-condition |  | | |
| Test procedure | 1. set country-code and reboot. 2. Creat a new radio profile na,phymode 11na,enable dfs,bind to wifi1. 3. Show int w0 channnel,check w0 channel list.compare with excel,result 1. 4. Show int w1 channel,check w1 channel list.compare with excel.result 2. | | |
| Expect result | Result 1:w0 channel list should obay that in excel.  Result 2:w1 channel list should obay that in excel. | | |

# CLI (Automation Status: Yes/No)

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

# Customer Issue or Typical Bug

/\*

\* Country/Region Codes from MS WINNLS.H

\* Numbering from ISO 3166

\*/

enum CountryCode {

CTRY\_ALBANIA = 8, /\* Albania \*/

CTRY\_ALGERIA = 12, /\* Algeria \*/

CTRY\_ARGENTINA = 32, /\* Argentina \*/

CTRY\_ARMENIA = 51, /\* Armenia \*/

CTRY\_AUSTRALIA = 36, /\* Australia \*/

CTRY\_AUSTRIA = 40, /\* Austria \*/

CTRY\_AZERBAIJAN = 31, /\* Azerbaijan \*/

CTRY\_BAHRAIN = 48, /\* Bahrain \*/

CTRY\_BELARUS = 112, /\* Belarus \*/

CTRY\_BELGIUM = 56, /\* Belgium \*/

CTRY\_BELIZE = 84, /\* Belize \*/

CTRY\_BOLIVIA = 68, /\* Bolivia \*/

CTRY\_BRAZIL = 76, /\* Brazil \*/

CTRY\_BRUNEI\_DARUSSALAM = 96, /\* Brunei Darussalam \*/

CTRY\_BULGARIA = 100, /\* Bulgaria \*/

CTRY\_CANADA = 124, /\* Canada \*/

CTRY\_CHILE = 152, /\* Chile \*/

CTRY\_CHINA = 156, /\* People's Republic of China \*/

CTRY\_COLOMBIA = 170, /\* Colombia \*/

CTRY\_COSTA\_RICA = 188, /\* Costa Rica \*/

CTRY\_CROATIA = 191, /\* Croatia \*/

CTRY\_CYPRUS = 196,

CTRY\_CZECH = 203, /\* Czech Republic \*/

CTRY\_DENMARK = 208, /\* Denmark \*/

CTRY\_DOMINICAN\_REPUBLIC = 214, /\* Dominican Republic \*/

CTRY\_ECUADOR = 218, /\* Ecuador \*/

CTRY\_EGYPT = 818, /\* Egypt \*/

CTRY\_EL\_SALVADOR = 222, /\* El Salvador \*/

CTRY\_ESTONIA = 233, /\* Estonia \*/

CTRY\_FAEROE\_ISLANDS = 234, /\* Faeroe Islands \*/

CTRY\_FINLAND = 246, /\* Finland \*/

CTRY\_FRANCE = 250, /\* France \*/

CTRY\_FRANCE2 = 255, /\* France2 \*/

CTRY\_GEORGIA = 268, /\* Georgia \*/

CTRY\_GERMANY = 276, /\* Germany \*/

CTRY\_GREECE = 300, /\* Greece \*/

CTRY\_GUATEMALA = 320, /\* Guatemala \*/

CTRY\_HONDURAS = 340, /\* Honduras \*/

CTRY\_HONG\_KONG = 344, /\* Hong Kong S.A.R., P.R.C. \*/

CTRY\_HUNGARY = 348, /\* Hungary \*/

CTRY\_ICELAND = 352, /\* Iceland \*/

CTRY\_INDIA = 356, /\* India \*/

CTRY\_INDONESIA = 360, /\* Indonesia \*/

CTRY\_IRAN = 364, /\* Iran \*/

CTRY\_IRAQ = 368, /\* Iraq \*/

CTRY\_IRELAND = 372, /\* Ireland \*/

CTRY\_ISRAEL = 376, /\* Israel \*/

CTRY\_ITALY = 380, /\* Italy \*/

CTRY\_JAMAICA = 388, /\* Jamaica \*/

CTRY\_JAPAN = 392, /\* Japan \*/

CTRY\_JAPAN1 = 393, /\* Japan (JP1) \*/

CTRY\_JAPAN2 = 394, /\* Japan (JP0) \*/

CTRY\_JAPAN3 = 395, /\* Japan (JP1-1) \*/

CTRY\_JAPAN4 = 396, /\* Japan (JE1) \*/

CTRY\_JAPAN5 = 397, /\* Japan (JE2) \*/

CTRY\_JAPAN6 = 399, /\* Japan (JP6) \*/

CTRY\_JAPAN7 = 4007, /\* Japan (J7) \*/

CTRY\_JAPAN8 = 4008, /\* Japan (J8) \*/

CTRY\_JAPAN9 = 4009, /\* Japan (J9) \*/

CTRY\_JAPAN10 = 4010, /\* Japan (J10) \*/

CTRY\_JAPAN11 = 4011, /\* Japan (J11) \*/

CTRY\_JAPAN12 = 4012, /\* Japan (J12) \*/

CTRY\_JAPAN13 = 4013, /\* Japan (J13) \*/

CTRY\_JAPAN14 = 4014, /\* Japan (J14) \*/

CTRY\_JAPAN15 = 4015, /\* Japan (J15) \*/

CTRY\_JAPAN16 = 4016, /\* Japan (J16) \*/

CTRY\_JAPAN17 = 4017, /\* Japan (J17) \*/

CTRY\_JAPAN18 = 4018, /\* Japan (J18) \*/

CTRY\_JAPAN19 = 4019, /\* Japan (J19) \*/

CTRY\_JAPAN20 = 4020, /\* Japan (J20) \*/

CTRY\_JAPAN21 = 4021, /\* Japan (J21) \*/

CTRY\_JAPAN22 = 4022, /\* Japan (J22) \*/

CTRY\_JAPAN23 = 4023, /\* Japan (J23) \*/

CTRY\_JAPAN24 = 4024, /\* Japan (J24) \*/

CTRY\_JAPAN25 = 4025, /\* Japan (J25) \*/

CTRY\_JAPAN26 = 4026, /\* Japan (J26) \*/

CTRY\_JAPAN27 = 4027, /\* Japan (J27) \*/

CTRY\_JAPAN28 = 4028, /\* Japan (J28) \*/

CTRY\_JAPAN29 = 4029, /\* Japan (J29) \*/

CTRY\_JAPAN30 = 4030, /\* Japan (J30) \*/

CTRY\_JAPAN31 = 4031, /\* Japan (J31) \*/

CTRY\_JAPAN32 = 4032, /\* Japan (J32) \*/

CTRY\_JAPAN33 = 4033, /\* Japan (J33) \*/

CTRY\_JAPAN34 = 4034, /\* Japan (J34) \*/

CTRY\_JAPAN35 = 4035, /\* Japan (J35) \*/

CTRY\_JAPAN36 = 4036, /\* Japan (J36) \*/

CTRY\_JAPAN37 = 4037, /\* Japan (J37) \*/

CTRY\_JAPAN38 = 4038, /\* Japan (J38) \*/

CTRY\_JAPAN39 = 4039, /\* Japan (J39) \*/

CTRY\_JAPAN40 = 4040, /\* Japan (J40) \*/

CTRY\_JAPAN41 = 4041, /\* Japan (J41) \*/

CTRY\_JAPAN42 = 4042, /\* Japan (J42) \*/

CTRY\_JAPAN43 = 4043, /\* Japan (J43) \*/

CTRY\_JAPAN44 = 4044, /\* Japan (J44) \*/

CTRY\_JAPAN45 = 4045, /\* Japan (J45) \*/

CTRY\_JAPAN46 = 4046, /\* Japan (J46) \*/

CTRY\_JAPAN47 = 4047, /\* Japan (J47) \*/

CTRY\_JAPAN48 = 4048, /\* Japan (J48) \*/

CTRY\_JAPAN49 = 4049, /\* Japan (J49) \*/

CTRY\_JAPAN50 = 4050, /\* Japan (J50) \*/

CTRY\_JAPAN51 = 4051, /\* Japan (J51) \*/

CTRY\_JAPAN52 = 4052, /\* Japan (J52) \*/

CTRY\_JAPAN53 = 4053, /\* Japan (J53) \*/

CTRY\_JAPAN54 = 4054, /\* Japan (J54) \*/

CTRY\_JAPAN55 = 4055, /\* Japan (J55) \*/

CTRY\_JAPAN56 = 4056, /\* Japan (J56) \*/

CTRY\_JAPAN57 = 4057, /\* Japan (J57) \*/

CTRY\_AUSTRALIA2 = 5000, /\* Australia \*/

CTRY\_CANADA2 = 5001, /\* Canada \*/

CTRY\_JORDAN = 400, /\* Jordan \*/

CTRY\_KAZAKHSTAN = 398, /\* Kazakhstan \*/

CTRY\_KENYA = 404, /\* Kenya \*/

CTRY\_KOREA\_NORTH = 408, /\* North Korea \*/

CTRY\_KOREA\_ROC = 410, /\* South Korea \*/

CTRY\_KOREA\_ROC2 = 411, /\* South Korea \*/

CTRY\_KOREA\_ROC3 = 412, /\* South Korea \*/

CTRY\_KUWAIT = 414, /\* Kuwait \*/

CTRY\_LATVIA = 428, /\* Latvia \*/

CTRY\_LEBANON = 422, /\* Lebanon \*/

CTRY\_LIBYA = 434, /\* Libya \*/

CTRY\_LIECHTENSTEIN = 438, /\* Liechtenstein \*/

CTRY\_LITHUANIA = 440, /\* Lithuania \*/

CTRY\_LUXEMBOURG = 442, /\* Luxembourg \*/

CTRY\_MACAU = 446, /\* Macau \*/

CTRY\_MACEDONIA = 807, /\* the Former Yugoslav Republic of Macedonia \*/

CTRY\_MALAYSIA = 458, /\* Malaysia \*/

CTRY\_MALTA = 470, /\* Malta \*/

CTRY\_MEXICO = 484, /\* Mexico \*/

CTRY\_MONACO = 492, /\* Principality of Monaco \*/

CTRY\_MOROCCO = 504, /\* Morocco \*/

CTRY\_NETHERLANDS = 528, /\* Netherlands \*/

CTRY\_NEW\_ZEALAND = 554, /\* New Zealand \*/

CTRY\_NICARAGUA = 558, /\* Nicaragua \*/

CTRY\_NORWAY = 578, /\* Norway \*/

CTRY\_OMAN = 512, /\* Oman \*/

CTRY\_PAKISTAN = 586, /\* Islamic Republic of Pakistan \*/

CTRY\_PANAMA = 591, /\* Panama \*/

CTRY\_PARAGUAY = 600, /\* Paraguay \*/

CTRY\_PERU = 604, /\* Peru \*/

CTRY\_PHILIPPINES = 608, /\* Republic of the Philippines \*/

CTRY\_POLAND = 616, /\* Poland \*/

CTRY\_PORTUGAL = 620, /\* Portugal \*/

CTRY\_PUERTO\_RICO = 630, /\* Puerto Rico \*/

CTRY\_QATAR = 634, /\* Qatar \*/

CTRY\_ROMANIA = 642, /\* Romania \*/

CTRY\_RUSSIA = 643, /\* Russia \*/

CTRY\_SAUDI\_ARABIA = 682, /\* Saudi Arabia \*/

CTRY\_SERBIA\_MONTENEGRO = 891, /\* Serbia and Montenegro \*/

CTRY\_SINGAPORE = 702, /\* Singapore \*/

CTRY\_SLOVAKIA = 703, /\* Slovak Republic \*/

CTRY\_SLOVENIA = 705, /\* Slovenia \*/

CTRY\_SOUTH\_AFRICA = 710, /\* South Africa \*/

CTRY\_SPAIN = 724, /\* Spain \*/

CTRY\_SWEDEN = 752, /\* Sweden \*/

CTRY\_SWITZERLAND = 756, /\* Switzerland \*/

CTRY\_SYRIA = 760, /\* Syria \*/

CTRY\_TAIWAN = 158, /\* Taiwan \*/

CTRY\_THAILAND = 764, /\* Thailand \*/

CTRY\_TRINIDAD\_Y\_TOBAGO = 780, /\* Trinidad y Tobago \*/

CTRY\_TUNISIA = 788, /\* Tunisia \*/

CTRY\_TURKEY = 792, /\* Turkey \*/

CTRY\_UAE = 784, /\* U.A.E. \*/

CTRY\_UKRAINE = 804, /\* Ukraine \*/

CTRY\_UNITED\_KINGDOM = 826, /\* United Kingdom \*/

CTRY\_UNITED\_STATES = 840, /\* United States \*/

CTRY\_UNITED\_STATES\_FCC49 = 842, /\* United States (Public Safety)\*/

CTRY\_URUGUAY = 858, /\* Uruguay \*/

CTRY\_UZBEKISTAN = 860, /\* Uzbekistan \*/

CTRY\_VENEZUELA = 862, /\* Venezuela \*/

CTRY\_VIET\_NAM = 704, /\* Viet Nam \*/

CTRY\_YEMEN = 887, /\* Yemen \*/

CTRY\_ZIMBABWE = 716 /\* Zimbabwe \*/

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