Roaming of automated testing

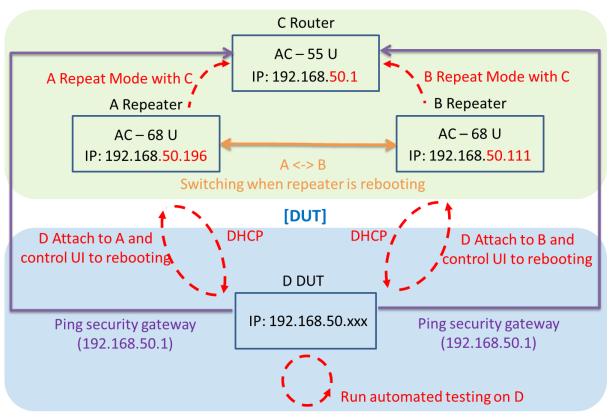
Version 1.0

Version History

Version	Date	Handled by	Comments
V1.0	17-May-2019	ZL Chen	First version release.
V1.1	21-Sep-2019	ZL Chen	Add the "Repeat Mode Setting.pdf".
V1.2	03-Oct-2019	ZL Chen	Join the system structure.

System Structure:

[Router and Repeater Environment]



Precondition Setting:

Please make sure the DUT is connected to the internet.

- > Setting the User Account Control Setting.
 - ✓ Please refer to the "User Account Control Setting.pdf" attachment (\automation\sop\other\User Account Control Setting)
- ➤ Install the Chrome browser.
 - ✓ Please refer to the "Chrome browser installation.pdf" attachment. (\automation\sop\other\Chrome browser installation.pdf)
- Install the Python 3.6.8.
 - ✓ Please refer to the "Python 3.6.8 installation.pdf" attachment. (\automation\sop\other\Python 3.6.8 installation.pdf)
- ➤ Install the third party library.
 - ✓ Double click the "Envir_Install.exe" under the installer folder.

 (\automation\installer\Envir_Install.exe)
- > Setting the Repeat Mode.
 - ✓ Please refer to the "Repeat Mode Setting.pdf" attachment. (\automation\sop\roaming\Repeat Mode Settting .pdf)

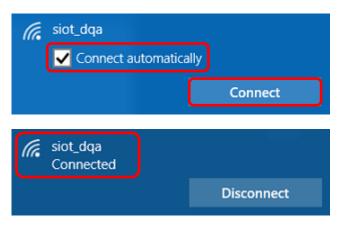
Please follow the implement as below:

Step 1:

Please make sure the Wi-Fi is connecting to the repeater.

SSID: siot_dqa

Password: ad20151225



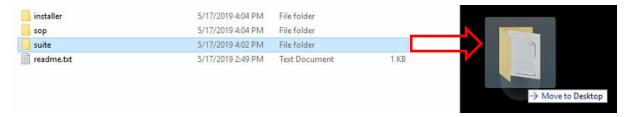
Step 2:

Please delete all of the known networks, because you need make sure the network just only attach to the "siot_dqa" repeater.

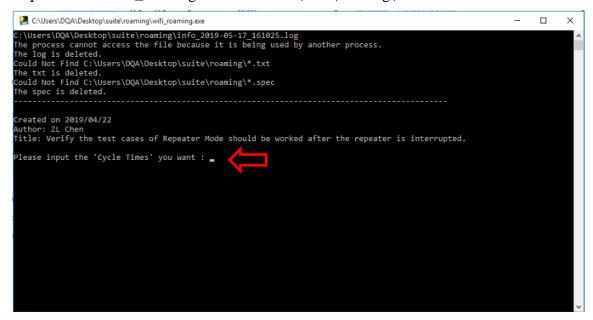


Step 3:

Please copy the roaming folder to the DUT's desktop.



Implement the wifi_roaming.exe under the "\suite\roaming\" folder.



Step 4:

Please input the "Cycle Times" you want. (Ex: 1), and then tap the "Enter".

Please input the Gateway. (Ex: 192.168.50.1), and tap the "Enter".

The program is start running.

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Ping statistics for 192.168.56.111: |

Packets: Sent = 1, Received = 1, Lost = 0 (0% loss), which in the repeter in paddress...

Pinging 192.168.56.111 with 32 bytes of data: |

SUCCESS: The process "chomedriver.exe" with PID 1916 has been terminated. |

The chomedriver is shutdown. |

Reply from 192.168.56.111: |

Packets: Sent = 1, Received = 1, Lost = 0 (0% loss), which is a constant of the chomedriver is shutdown. |

Reply from 192.168.56.111: |

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Reply from 192.168.56.111 with 32 bytes of data: |

Reply from 192.168.56.111 with 32 bytes of data: |

Reply from 192.168.56.511 with 32 bytes of data: |

Reply from 192.168.56.511 with 192.168.56.111 |

Packets: Sent = 1, Received = 1, Lost = 0 (0% loss), |

Reply from 192.168.56.51 |

Reply from 192.168.56.51 |

Reply from 192.168.56.51 |

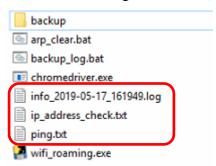
Packets: Sent = 1, Received = 1, Lost = 0 (0% loss), |

Reply from 192.168.56.5
```

Step 5:

When the program is completed, the windows should be closed.

You can see the log under the "\roaming\" folder as below:



info_2019-05-17_161949.log base on date and time.

```
2019-05-17 16:19:49,535 - INFO : Verify the test cases of Repeater Mode should be worked after the repeater is interrupted.
2019-05-17 16:20:07,467 - INFO : Cycle : 1
2019-05-17 16:20:07,467 - INFO : #-----
                              INFO : A switch to B. WARNING : Start time is: Fri May 17 16:20:07 2019
2019-05-17 16:20:07,467 -
2019-05-17 16:20:07,468 -
2019-05-17 16:20:14,875 -
                              WARNING : Catch the login filed.
2019-05-17 16:20:14,875 - WARNING : End time: Fri May 17 16:20:14 2019 2019-05-17 16:20:14,875 - INFO : The AP is switch to other.
                              INFO : The browser is opened.
2019-05-17 16:20:14,876 -
2019-05-17 16:20:22,792 -
                              WARNING : The MAC address is "40:B0:76:37:BC:78"
2019-05-17 16:20:22,808 -
                              INFO: The AP switch to the 192.168.50.196.(Sueecssed)
2019-05-17 16:20:22,873 -
2019-05-17 16:20:29,607 -
                              WARNING : Start time is: Fri May 17 16:20:22 2019
WARNING : The start time of ip address catched : 2019-05-17 16:20:29.589999
2019-05-17 16:20:29,608 -
                              {\sf INFO} : The Repeater is already reboot.
2019-05-17 16:20:29,608 -
                              INFO : Finished the ipv4 thread, the thread is stoped.
2019-05-17 16:20:29,775 -
                              INFO: The browser is Closed.
2019-05-17 16:20:29,946 -
                              INFO: Make sure the Mac address is correct.
2019-05-17 16:20:33,447 -
                              WARNING : Catch the ip address of 192.168.50.111
2019-05-17 16:20:33,448 - INFO : The end time of ip address catched : 2019-05-17 16:20:33.447090 2019-05-17 16:20:33,449 - INFO : The interval time of swith to repeater is 3.857091 seconds.
2019-05-17 16:20:40,451 -
                              WARNING : Catch the login filed.
2019-05-17 16:20:40,452 -
                              WARNING : End time: Fri May 17 16:20:40 2019
2019-05-17 16:20:40,452 -
                              INFO: The AP is switch to other
2019-05-17 16:20:40,453 - 2019-05-17 16:20:40,454 -
                              WARNING: The interval time is 17 seconds.
                              INFO : The browser is opened.
                              WARNING: The MAC address is "4C:ED:FB:A4:54:58"
2019-05-17 16:20:48,319 -
2019-05-17 16:20:48,327 - INFO : The AP switch to the 192.168.50.111.(Sueecssed)
2019-05-17 16:20:48,398 -
                              INFO: Finished the ping thread, the thread is stoped.
2019-05-17 16:20:48,477 -
                              INFO: The browser is Closed.
2019-05-17 16:20:48,617 - INFO : Waiting the repeater rebooting about 100 secs.
2019-05-17 16:22:28,618 - INFO : The AP is re 2019-05-17 16:22:28,618 - INFO : #------
                              INFO: The AP is rebooted.
2019-05-17 16:22:28,618 -
                              INFO : B switch to A.
2019-05-17 16:22:28,618 -
                              WARNING : Start time is: Fri May 17 16:22:28 2019
2019-05-17 16:22:36,076 - WARNING : Catch the login filed
2019-05-17 16:22:36,076 - WARNING : End time: Fri May 17 16:22:36 2019
```

The interval time of switch to repeater is 3.857091 seconds. (A switch to B)

```
2019-05-17 16:20:48,327 - INFO: The AP switch to the 192.168.50.111.(Sueecssed)
2019-05-17 16:20:48,398 - INFO : Finished the ping thread, the thread is stoped.
2019-05-17 16:20:48,477 - INFO : The browser is Closed.
2019-05-17 16:20:48,617 - INFO: Waiting the repeater rebooting about 100 secs.
2019-05-17 16:22:28,618 - INFO : The AP is rebooted.
2019-05-17 16:22:28,618 - INFO : #-----
2019-05-17 16:22:28,618 - INFO : B switch to A.
                          WARNING : Start time is: Fri May 17 16:22:28 2019
2019-05-17 16:22:28,618 -
2019-05-17 16:22:36,076 - WARNING : Catch the login filed.
2019-05-17 16:22:36,076 -
                          WARNING : End time: Fri May 17 16:22:36 2019
2019-05-17 16:22:36,077 - INFO : The AP is switch to other.
2019-05-17 16:22:36,077 - INFO : The browser is opened.
2019-05-17 16:22:42,249 - WARNING : The MAC address is "4C:ED:FB:A4:54:58"
                          INFO: The AP switch to the 192.168.50.111. (Sueecssed)
2019-05-17 16:22:42,261 -
2019-05-17 16:22:42,371 - WARNING : Start time is: Fri May 17 16:22:42 2019
2019-05-17 16:22:49,035 -
                          WARNING: The start time of ip address catched: 2019-05-17 16:22:49.015284
2019-05-17 16:22:49,036 - INFO : The Repeater is already reboot.
2019-05-17 16:22:49,036 - INFO : Finished the ipv4 thread, the thread is stoped.
2019-05-17 16:22:49,204 - INFO : The browser is Closed.
2019-05-17 16:22:49,355 - INFO : Make sure the Mac address is correct
2019-05-17 16:22:53,495 -
                          WARNING: Catch the ip address of 192.168.50.196
2019-05-17 16:22:53,495 - INFO : The end time of ip address catched : 2019-05-17 16:22:53.495170
2019-05-17 16:22:53,496 - INFO : The interval time of swith to repeater is 4.479886 seconds.
2019-05-17 16:22:59,846 -
                          WARNING : Catch the login filed.
2019-05-17 16:22:59,846 -
                          WARNING : End time: Fri May 17 16:22:59 2019
2019-05-17 16:22:59,846 - INFO : The AP is switch to other
2019-05-17 16:22:59,846 - WARNING : The interval time is 17 seconds.
2019-05-17 16:22:59,846 - INFO : The browser is opened.
2019-05-17 16:23:08,044 - WARNING : The MAC address is "40:B0:76:37:BC:78"
2019-05-17 16:23:08,068 - INFO : The AP switch to the 192.168.50.196.(Sueecssed)
2019-05-17 16:23:08,164 - INFO : Finished the ping thread, the thread is stoped.
2019-05-17 16:23:08,263 - INFO : The browser is Closed.
2019-05-17 16:23:08,402 - INFO: Waiting the repeater rebooting about 100 secs.
2019-05-17 16:24:48,403 - INFO : The AP is rebooted.
2019-05-17 16:24:48,403 - INFO : The test suite of wifi_roaming is finished.
```

The interval time of switch to repeater is 4.479886 seconds. (B switch to A)

- > ip_address_check is arp log.
- > ping.txt is ping status.

```
Cycle :1 , A switch to B.
                                                Cycle :1 , B switch to A.
Pinging 8.8.8.8 with 32 bytes of data:
                                                 Pinging 8.8.8.8 with 32 bytes of data:
Reply from 8.8.8.8: bytes=32 time=3ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=4ms TTL=53
Reply from 8.8.8.8: bytes=32 time=48ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=3ms TTL=53
Reply from 8.8.8.8: bytes=32 time=13ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=13ms TTL=53
Reply from 8.8.8.8: bytes=32 time=58ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=8ms TTL=53
Reply from 8.8.8.8: bytes=32 time=3ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=7ms TTL=53
Reply from 8.8.8.8: bytes=32 time=4ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=3ms TTL=53
Reply from 8.8.8.8: bytes=32 time=59ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=8ms TTL=53
Reply from 8.8.8.8: bytes=32 time=5ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=212ms TTL=53
Reply from 8.8.8.8: bytes=32 time=4ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=3ms TTL=53
Reply from 8.8.8.8: bytes=32 time=6ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=21ms TTL=53
Reply from 8.8.8.8: bytes=32 time=78ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=54ms TTL=53
Request timed out.
Reply from 8.8.8.8: bytes=32 time=14ms TTL=53
                                                 Request timed out.
                                                 Reply from 192.168.50.104: Destination host unreachable.
Reply from 8.8.8.8: bytes=32 time=4ms TTL=53
Reply from 8.8.8.8: bytes=32 time=3ms TTL=53
                                                 Reply from 192.168.50.104: Destination host unreachable.
Reply from 8.8.8.8: bytes=32 time=3ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=8ms TTL=53
Reply from 8.8.8.8: bytes=32 time=53ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=4ms TTL=53
Reply from 8.8.8.8: bytes=32 time=14ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=16ms TTL=53
Reply from 8.8.8.8: bytes=32 time=4ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=4ms TTL=53
Reply from 8.8.8.8: bytes=32 time=7ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=13ms TTL=53
Reply from 8.8.8.8: bytes=32 time=4ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=5ms TTL=53
Reply from 8.8.8.8: bytes=32 time=34ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=11ms TTL=53
Reply from 8.8.8.8: bytes=32 time=5ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=23ms TTL=53
Reply from 8.8.8.8: bytes=32 time=53ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=1056ms TTL=53
Reply from 8.8.8.8: bytes=32 time=4ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=12ms TTL=53
Reply from 8.8.8.8: bytes=32 time=5ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=3ms TTL=53
Reply from 8.8.8.8: bytes=32 time=11ms TTL=53
Reply from 8.8.8.8: bytes=32 time=4ms TTL=53
                                                 Reply from 8.8.8.8: bytes=32 time=6ms TTL=53
```