**TEST PLAN**

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| SN | Test Case | Test Data | Description | Expected Result | Actual Result | Action | Retest |
| 1 | Wrong list of IP values | IP = [43.2, 85.2, 93.5] | Ping a list of wrong IP values | Exception raised | Exception raised | None | 1 |
| 2 | Wrong Single IP values | IP = 43.2 | Ping a list of wrong IP value | Exception raised | Exception raised | None | 2 |
| 3 | Correct list of IP values | IP = [‘127.0.0.1’] | Ping a list of correct IP values | PASS | PASS | None | 3 |
| 4 | Correct single IP value | IP = ‘127.0.0.1’ | Ping a single correct IP value | PASS | PASS | None | 4 |

TEST PLAN TO PING SINGLE/MULTIPLE IPS/HOSTNAMES

TEST PLAN FOR A PORT SCAN OF IP/HOSTNAME ON A RANGE OF PORTS

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| SN | Test Case | Test Data | Description | Expected Result | Actual Result | Action | Retest |
| 1 | Wrong list of IP values with correct range of port values | hostname = [43.2, 85.2, 93.5]  1st port range value = 443  2nd port range value = 444 | Port scan for wrong IP/hostname list values (with correct port values) | Exception raised | Exception raised | None | 1 |
| 2 | Wrong IP value with correct range of port values | hostname = ‘yahoo.com, google.com’  1st port range value = 443  2nd port range value = 444 | Port scan for correct IP/hostname list values (with correct port values) | PASS | PASS | None | 2 |
| 3 | Correct list of IP values with correct range of port values | IP = ‘yahoo.com, google.com’  1st port range value = ‘foo’  2nd port range value = ‘bar’ | Port scan for correct IP/hostname list values (with wrong port values) | Exception raised | Exception raised | None | 3 |

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| SN | Test Case | Test Data | Description | Expected Result | Actual Result | Action | Retest |
| 1 | Wrong port values | port value = ‘foo’ | Create a receiver socket connection with a wrong port value | Exception raised | Exception raised | None | 1 |
| 2 | Correct port values | port value = ‘443’ | Create a receiver socket connection with a correct port value | PASS | PASS | None | 2 |

TEST PLAN FOR A RECEIVER SOCKET CONNECTION

TEST PLAN FOR A SENDER SOCKET CONNECTION

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| SN | Test Case | Test Data | Description | Expected Result | Actual Result | Action | Retest |
| 1 | Wrong time-to-live (ttl) values | ttl value = ‘foo’ | Create a sender socket connection with a wrong port value | Exception raised | Exception raised | None | 1 |
| 2 | Correct time-to-live (ttl) values | ttl value = ‘1’ | Create a sender socket connection with a correct port value | PASS | PASS | None | 2 |

TEST PLAN FOR A TRACE ROUTE ON IP/HOSTNAME AND PORT VALUES

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| --- | --- | --- | --- | --- | --- | --- | --- |
| SN | Test Case | Test Data | Description | Expected Result | Actual Result | Action | Retest |
| 1 | Wrong IP/hostname and port values | ip = 'foo'  port = 'bar' | Trace route for wrong IP and port values. | Exception raised | Exception raised | None | 1 |
| 2 | Correct IP/hostname and port values | ip = 'localhost'  port = '80' | Trace route for correct IP and port values. | PASS | PASS | None | 2 |