

Test Document

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Test No	Description	Test	Expected result	Pass/Fail	Actual Result
1	Select Menu [SERVER and CLIENT]	Select 'SERVER' and CLIENT radio Button	<ul style="list-style-type: none"> - SERVER MODE Lock the IP address, packet size, number of packet and Sendfile input - CLIENT MODE Unlocked those filed 	Pass (Figure 1,2)	<ul style="list-style-type: none"> - Check 'SERVER' Open only TCP/IP radio And PORT input - check 'CLIENT' unlock all input field
2	Connect [SERVER] mode	Select 'SERVER' and press CONNECT	<ul style="list-style-type: none"> - Display SERVER mode message - Waiting without closing message - Lock the SERVER/CLIENT radio button 	Pass (Figure 1)	<ul style="list-style-type: none"> - check 'SERVER' - get only 'START SERVER port 7000' message
3	Connect [CLIENT] mode without server	Select 'CLIENT' and press CONNECT Without Server start	<ul style="list-style-type: none"> - Check radio button 'Client'. - Error message displayed 	Pass (Figure 3)	<ul style="list-style-type: none"> - Display Client mode with ip and port - Error message
4	Connect [CLIENT] mode to server	Open SERVER side Select 'CLIENT' and press CONNECT	<ul style="list-style-type: none"> - Check radio button 'Client'. - Get Send information after for a while 	Pass (Figure 2)	<ul style="list-style-type: none"> - Check radio button 'Client'. - Get Send information which is the number of times, send each packet size, and total packet size
5	Connect [CLIENT] and send file	Open SERVER side Select 'CLIENT' and press 'File Transfer'.	<ul style="list-style-type: none"> - Open CLIENT mode - Send result of file : Each packet size, and total packet size 	Pass (Figure 4)	<ul style="list-style-type: none"> - Display Client message with IP and Port. - Send file result - SEND SIZE 1000, TOTAL
6	Connect [SERVER] and send message from client in TCP mode	Open Both in TCP mode Send packet Size 40000, 1000 times	<ul style="list-style-type: none"> - Open in SERVER mode - Receive 4000000 bytes - And display times and speed of sending 	Pass (Figure 5)	<ul style="list-style-type: none"> - Display Server Conn message - Get Message 'recv data total 4000000, times 429468.00 us, speed 93.14 Mb/s

Test No	Description	Test	Expected result	Pass/Fail	Actual Result
7	Connect [SERVER] and send message From client In UDP mode	Open Both in UDP mode Send packet Size 40000, 1000 times	<ul style="list-style-type: none"> - Open in SERVER mode - Receive 4000000 bytes or loss a bit - And display times and speed of sending 	Pass (Figure 5)	<ul style="list-style-type: none"> - Display Server Conn message - Get Message 'recv data total 3836000, times 391032.00 us, speed 98.00 Mb/s
8	Connect [SERVER] and send message from client in TCP mode	Open Both in TCP mode Send packet Size 1024, 100 times	<ul style="list-style-type: none"> - Open in SERVER mode - Receive 102400 bytes - And display times and speed of sending 	Pass (Figure 6)	<ul style="list-style-type: none"> - Display Server Conn message - Get Message 'recv data total 10240, times 1.00 us, speed 10240.00 Mb/s
9	Connect [SERVER] and send message from client in UDP mode	Open Both in UDP mode Send packet Size 1024, 10 times	<ul style="list-style-type: none"> - Open in SERVER mode - Receive 102400 bytes or loss a bit - And display times and speed of sending 	Pass (Figure 6)	<ul style="list-style-type: none"> - Display Server Conn message - Get Message 'recv data total 499900000, times 4797882.00 us, speed 104.19 Mb/s
10	Connect different port in TCP mode	Server port 7000, Client port 4000 and connect	<ul style="list-style-type: none"> - Display error message in client 	Pass (Figure 7)	<ul style="list-style-type: none"> - Display error message 10061
11	Connect different port in UDP mode	Server port 7000, Client port 4000 and connect	<ul style="list-style-type: none"> - No error message in client side - just finishing send data 	Pass (Figure 7)	<ul style="list-style-type: none"> - No error message in client side - No receiving in server side - Client send all message
12	Send file size of around 150 MB in TCP	Send 150Mb file send in TCP mode	<ul style="list-style-type: none"> - Receive all file without losing information - 	Pass (Figure 8)	<ul style="list-style-type: none"> - Received all file without losing information
13	Send file size of 150 Mb in UDP	Send 150Mb file send in TCP mode	<ul style="list-style-type: none"> - Received file with some loss 	Pass (Figure 8)	Received file but loss alot

Figure 1

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☒ SERVER☐ CLIENT

Protocol Type

☒ TCP☐ UDP

Port Number

7000

IP Address

Packet Size

Byte

Number of times

Times

File Name

CONNECT

File Transfer

DISCONNECT

CLEAR

```
START SERVER PORT: 7000
Socket number 392 connected
Client Closing socket 436
Recv Data total 2500000, time : 33439.00 us
Speed : 74.76 MB/s
*****

disconnected!
START SERVER PORT: 7000
Socket number 112 connected
Client Closing socket 400
Recv Data total 2500000, time : 28894.00 us
Speed : 86.52 MB/s
*****

disconnected!
```

Figure 2

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☐ SERVER☒ CLIENT

Protocol Type

☒ TCP☐ UDP

Port Number

7000

IP Address

192.160.0.25

Packet Size

5000

Byte

Number of times

500

Times

File Name

CONNECT

File Transfer

DISCONNECT

CLEAR

```
START CLIENT IP : 192.168.0.25, PORT: 7000
STR SIZE: 5000, TIMES: 500
[500] SEND SIZE 5000, TOTAL 2500000
FINISHED
*****

START CLIENT IP : 192.168.0.25, PORT: 7000
STR SIZE: 5000, TIMES: 500
[500] SEND SIZE 5000, TOTAL 2500000
FINISHED
*****

disconnected!
START CLIENT IP : 192.160.0.25, PORT: 7000
WSAGETSELError Socket failed with error 10060
```

Figure 3

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SERVER

CLIENT

Protocol Type

Port Number

TCP

UDP

7000

IP Address

192.160.0.25

Packet Size

Number of times

5000

Byte

500

Times

File Name

CONNECT

File Transfer

DISCONNECT

CLEAR

START CLIENT IP : 192.168.0.25, PORT: 7000
STR SIZE: 5000, TIMES: 500
[500] SEND SIZE 5000, TOTAL 2500000
FINISHED

START CLIENT IP : 192.168.0.25, PORT: 7000
STR SIZE: 5000, TIMES: 500
[500] SEND SIZE 5000, TOTAL 2500000
FINISHED

disconnected!
START CLIENT IP : 192.160.0.25, PORT: 7000
WSAGETSELError Socket failed with error 10060

Figure 4

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SERVER

CLIENT

Protocol Type

Port Number

TCP

UDP

7000

IP Address

Packet Size

Number of times

Byte

Times

File Name

CONNECT

File Transfer

DISCONNECT

CLEAR

UDP
START SERVER PORT: 7000
Recv Data total 142410000, time : 1432655.00 us
Speed : 99.40 MB/s

TCP
START SERVER PORT: 7000
Socket number 416 connected
Client Closing socket 404
Recv Data total 154562000, time : 1809109.00 us
Speed : 85.44 MB/s

Sever File Transfer result in TCP UDP

Figure 5

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☒ SERVER ☐ CLIENT

Protocol Type: ☒ TCP ☐ UDP Port Number: 7000

IP Address:

Packet Size: Byte Number of times: Times

File Name:

CONNECT File Transfer

DISCONNECT CLEAR

```
START SERVER PORT: 7000
Recv Data total 38360000, time : 391032.00 us
Speed : 98.10 MB/s
*****

TCP
disconnected!
START SERVER PORT: 7000
Socket number 156 connected
Client Closing socket 116
Recv Data total 40000000, time : 429468.00 us
Speed : 93.14 MB/s
*****
```

TCP send 400K 1000times

Figure 6 – UDP receive

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☒ SERVER ☐ CLIENT

Protocol Type: ☒ TCP ☐ UDP Port Number: 7000

IP Address:

Packet Size: Byte Number of times: Times

File Name:

CONNECT File Transfer

DISCONNECT CLEAR

```
UDP
START SERVER PORT: 7000
Recv Data total 65536, time : 1619.00 us
Speed : 40.48 MB/s
*****

disconnected!
TCP
START SERVER PORT: 7000
Socket number 404 connected
Client Closing socket 380
Recv Data total 83260, time : 7345.00 us
Speed : 11.34 MB/s
*****

WSARecv() failed with error 10093
disconnected!
START SERVER PORT: 7000
Socket number 384 connected
Client Closing socket 352
Recv Data total 102400, time : 1.00 us
Speed : 102400.00 MB/s
*****

disconnected!
```

Figure 7

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SERVER

CLIENT

Protocol Type

TCP

UDP

Port Number

4000

IP Address

192.168.0.25

Packet Size

1024

Byte

Number of times

100

Times

File Name

CONNECT

File Transfer

DISCONNECT

CLEAR

START CLIENT IP : 192.168.0.25, PORT: 4000

WSAETSELEERROR Socket failed with error 10061

UDP

START CLIENT IP : 192.168.0.25, PORT: 4000

UDP CLIENT BINDING

START SEND

START SEND

SEND SIZE 1024, TOTAL 102400

UDP SEND TOTAL 102400

Figure 8

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SERVER

CLIENT

Protocol Type

TCP

UDP

Port Number

7000

IP Address

192.168.0.25

Packet Size

1000

Byte

Number of times

Times

File Name

te.txt

CONNECT

File Transfer

DISCONNECT

CLEAR

START CLIENT IP : 192.168.0.25, PORT: 7000

UDP CLIENT BINDING

START SEND

START SEND

SEND SIZE 1000, TOTAL 154562000

UDP SEND TOTAL 154562000

TCP

START CLIENT IP : 192.168.0.25, PORT: 7000

SEND SIZE 1000, TOTAL 154562000
