Application note on Jperf 2.0 software for throughput verification in data links.

JPERF_AN_ENB01W



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Download the **Jperf 2.0** application from the Internet, decompress the file and place it in the root directory of your disc unit, as shown in the group of images of **figure 2**

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Figure 2



Remember to verify the IP addresses of the Computer interface cards shown in the **figure 1**, and remember they must be in the same segment and different.

In this example they are: 192.168.1.3 and 192.168.1.4, as shown in the images of **figure 3.**

Figure 3

Connection			
Duration: Speed:	General Area Connection Properties General Advanced Connect using:	<u>*</u> *	
Activity Sent — Packets: 163,655 Properties Disable	Intel® 82567LM Gigdbil Network This connection uses the following ite M '3" Realek EAPPH Protocol M '3" AEBIS Protocol (IEEE 802.1 M '3" Intelet Protocol (IEEP/IP) Import Intel® Control (ICEP/IP) Import Description Transmission Control Protocol/Intel wide area network	Configure Accract Predocol (ICP/IP) Prop General You can get IP settings assigned the appropriate IP settings C Obtain an IP address autom C Use the following IP address IP address Subnet mark: Default natewar	cetters 2 extrametically if your network supports ed to ask your network administrator for atically
	Notify me when this connection he	C Obtain DWS server address C Obtain DWS server address C Use the following DNS serve Preferred DNS server: Alternate DNS server:	automotically er addesses:

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Please verify that pings can be sent between both equipment as shown in the images of **figure 4** Command Prompt
_ □ ×
C:\>ping 192.168.1.4 _

📾 Command Prompt	_ 🗆 ×
C:\>ping 192.168.1.4	^
Pinging 192.168.1.4 with 32 bytes of data:	
Reply from 192.168.1.4: bytes=32 time<1ms TTL=128 Reply from 192.168.1.4: bytes=32 time<1ms TTL=128 Reply from 192.168.1.4: bytes=32 time<1ms TTL=128 Reply from 192.168.1.4: bytes=32 time<1ms TTL=128	
Ping statistics for 192.168.1.4: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = Oms, Maximum = Oms, Average = Oms	



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In case you have a Firewall installed, please check that the corresponding ports are open or deactivate the firewall in order to execute the test.

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In this example, we will configure the server Mode on the IP 192.168.1.4 side and the configuration as a Client in the IP 192.168.1.3

In the figure 6 you can watch the data you must input in the PC that will be used as server (192.168.1.4).

🕌 JPerf 2.0 - Network pe	rformance measurem	ent graphical tool				
<u>H</u> elp						
Iperf command:	bin/iperf.exe -s -	P 0 -i 1 -p 5001 -f k				
Choose iPerf Mode:	Client	Server address		Port 5,001		
		Parallel Streams	1			🔘 🌒 📀
	Server	Listen Port	5,001 📩 📃 Clie	ent Limit		
		Num Connections	0			
9						Figure
You can proce stablish the units	ed now to s of measure	Perf 2.0 - Network performance measuren Help	vent graphical tool			נום.
of throughput	that will	Iperf command: bin/iperf.exe -s Choose iPerf Mode: Client	-P 0 -I 1 -p 5001 -fk Server address	Pert	5.001	
be used in th	e graphics,		Parallel Streams	1		2 0 😣
as shown in fig	Jre 7.	Server	Listen Port	5,001 Client Limit		
as snown in ngr	Figure 7	Application layer options	Num Connections		Bandwidth	Mon, 27 Apr 2015 16:16:1



Once configured, proceed to initiate the capture of the traffic, select the corresponding Icon, as shown in **figure 8**.



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Move yourself to the other PC and execute the Jperf application in it, select it to work as a Client, as shown in figure 9.

perf command:	Please enter the host to connect to						
Choose iPerf Mode:	Client	Server address	Port	5,001			
		Parallel Streams	1.		See 19 6		
	○ Server	Listen Port	5,001 Client Limit				
		Num Connections					
					Figure		

Input the Server IP in the corresponding field, as shown in figure 10

Help						
lperf command:	bin/iperf.exe -c 1	92.168.1.4 -P 1 -i 1 -p 5001 -f m	n -t 10 -T 1			
Choose iPerf Mode:	Client	Server address	192.168.1.4	Port	5,001	
		Parallel Streams	1			🚳 🕚 😔
	O Server	Listen Port	5,001	Client Limit		
		Num Connections	0			

Figure 10

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If you watch this example, we are sending the traffic equivalent of only one sesion of **figure 11a**, remember to select the units of measure of throughput like you did in the Server, as shown in **figure 11b**

<u>H</u> elp perf command:	bin/iperfiexe -c 1	92 168 1 4 -P 1 -i 1 -n 5001 -fn	1 4 -P 1 -i 1 -n 5001 -fm -t10 -T 1			Transmit	10	
Choose iPerf Mode:	Client	Server address Parallel Streams	192.168.1.4 Port		5,001 +	Output Format Report Interval	Bytes OS KBits Bits Bits	Seconds
	⊖ Server	Listen Port Num Connections	5,001 (*) (*) (*)	Client Limit		Testing Mode Representative File	GDRs GDytes KDRs	5,001
				F	igure 11a	Print MSS	KEytes MEIts MExtes	Ţ.

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To start the test, select the start option (button inside the red rectangle), as shown in figure 12.

Help						
lperf command:	bin/iperf.exe -c 1	92.168.1.4 -P 1 -i 1 -p 5001 -f n	n -t 10 -T 1			
Choose iPerf Mode:	Client	Server address	192.168.1.4	Port	5,001 🗧	
		Parallel Streams	1			🚳 🕕 😔
	O Server	Listen Port	5,001	Client Limit		
		Num Connections	0			

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The program will start sending traffic and perform the test, and will show the results when finished, as shown in **figure 13**.





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If you select more sessions, they will be represented and each will produce results plus the general traffic sum, as shown in **figure 14.** Please remember that in each test you will have to select the start button mentioned in the **Step 14**, and the destination server should be active.



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You can play with the different parameters if needed.

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