

How to Use Network Test in oracle Applications

Use the Network Test window to evaluate the performance of network with Oracle Applications.

The Network Test consists of a Following tests.

1. Latency Test

It examines the time taken for a single packet to make a round trip from the client side application to the server.

Note: - Latency is time delay between the moment something is initiated and the moment its first effect begins.

2. Bandwidth Test

It examines the data rate to see how many bytes per second the network can transfer from the server to the client.

We can provide notes to indicate the conditions for each test run.

1. To test **latency** on a network
2. Navigate to **Application** → **Network Test** By using System Administrator Responsibility
3. Use the Clear Old Test Data button to purge previous test results from your database
4. Specify the number of Trials and the Iterations for latency and bandwidth trial

The screenshot shows the Oracle Network Test window with the following configuration:

- Latency Test:** Trials: 5, Iterations: 100
- Bandwidth Test:** Trials: 5, Iterations: 10
- Notes:** (Empty text field)
- Buttons:** Clear Old Test Data, Run Test
- Current Iteration:** (Empty text field)
- Results Section:**
 - Test Date:** (Empty text field)
 - Batch:** (Checked checkbox)
 - Latency Results - Round Trip Time (milliseconds):**

Client			Form Server			DataBase		
Min	Avg	Max	Min	Avg	Max	Min	Avg	Max

Sample Data:

Min	Avg	Max		Min	Avg	Max
			LAN			
			WAN			
 - Bandwidth Results - Data Rate (Bytes per second):**

Client			Form Server			DataBase		
Min	Avg	Max	Min	Avg	Max	Min	Avg	Max

Sample Data:

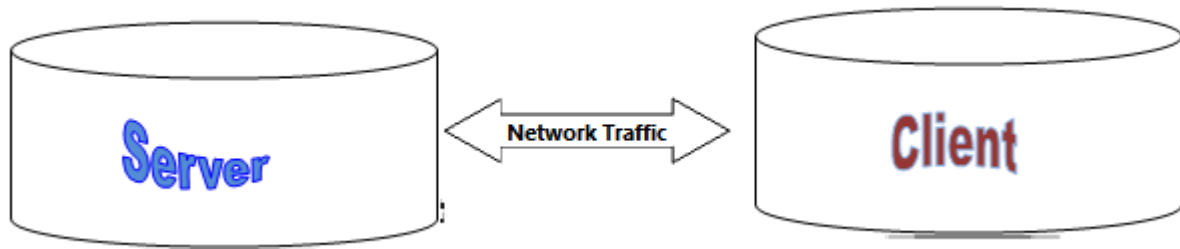
Min	Avg	Max		Min	Avg	Max
			LAN			
			WAN			

LAN = Client at HQ (Redwood Shores) and Server at HQ on LAN.
WAN = Client at HQ and server in Orlando (T1 line).

For every iteration a single packet is sent from the client application to the server and back to server from client.

Trial: - A trial consists of the specified number of iterations.

The total time for all round trips in a trial is divided by the number of iterations to obtain the average latency that is that trial's result. (Metalink.oracle.com)



5. After filling this information

The screenshot shows the 'Network Test' application window. It has a configuration section at the top with input fields for 'Trials' and 'Iterations' for both 'Latency' and 'Bandwidth' tests. Below this is a 'Notes' field containing the text 'This Is Demonstrated Network Test' and a 'Run Test' button. The 'Results' section is divided into 'Latency Results' and 'Bandwidth Results', each with a table of statistics for Client, Form Server, and DataBase. A 'Sample Data' table is also provided for each. At the bottom, there is explanatory text for LAN and WAN configurations.

Latency Configuration: Trials: 2, Iterations: 50

Bandwidth Configuration: Trials: 2, Iterations: 10

Notes: This Is Demonstrated Network Test

Test Date: 25-JUL-2007 13:35:25

Latency Results - Round Trip Time (milliseconds)

Client			Form Server			DataBase		
Min	Avg	Max	Min	Avg	Max	Min	Avg	Max
86.7	88.2	89.7	.2	.2	.2			

Bandwidth Results - Data Rate (Bytes per second)

Client			Form Server			DataBase		
Min	Avg	Max	Min	Avg	Max	Min	Avg	Max
2774.2	2790.0	2805.8	73006.0	76006.6	79007.1			

Sample Data

Min	Avg	Max		Min	Avg	Max
201.7	217.3	232.9	LAN	3.3	3.4	3.4
460.2	469.3	478.3	WAN	71.1	71.4	71.7

LAN = Client at HQ (Redwood Shores) and Server at HQ on LAN.
WAN = Client at HQ and server in Orlando (T1 line).

6. Select the Run Test button to perform the test.

Evaluating the Test Results

The results of both the latency and bandwidth tests display in the Results block.

Results Test Date **25-JUL-2007 13:35:25** Batch

Latency Results

— Round Trip Time (milliseconds) —

Client			Form Server			DataBase		
Min	Avg	Max	Min	Avg	Max	Min	Avg	Max
86.7	88.2	89.7	.2	.2	.2			

— Sample Data —

Min	Avg	Max		Min	Avg	Max
201.7	217.3	232.9	LAN	3.3	3.4	3.4
460.2	469.3	478.3	WAN	71.1	71.4	71.7

Bandwidth Results

— Data Rate (Bytes per second) —

Client			Form Server			DataBase		
Min	Avg	Max	Min	Avg	Max	Min	Avg	Max
2774.2	2790.0	2805.8	73006.0	76006.6	79007.1			

— Sample Data —

Min	Avg	Max		Min	Avg	Max
773.2	800.0	826.7	LAN	8275.9	8582.4	8888.9
296.3	322.0	347.6	WAN	586.8	617.7	648.6

LAN = Client at HQ (Redwood Shores) and Server at HQ on LAN.
WAN = Client at HQ and server in Orlando (T1 line).

Latency Results display the minimum, average, and maximum round trip time for a single round trip from a PC client to the server.

Bandwidth Results display the minimum, average, and maximum data rate in kilobytes per second over the trials.

For comparison Oracle provided the sample data fields which shows the results of tests completed at the development headquarters in Redwood Shores. These tests were conducted under ideal conditions; it is unlikely that your results can match them. (Metalink)

— Sample Data —

Min	Avg	Max		Min	Avg	Max
201.7	217.3	232.9	LAN	3.3	3.4	3.4
460.2	469.3	478.3	WAN	71.1	71.4	71.7

— Sample Data —

Min	Avg	Max		Min	Avg	Max
773.2	800.0	826.7	LAN	8275.9	8582.4	8888.9
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