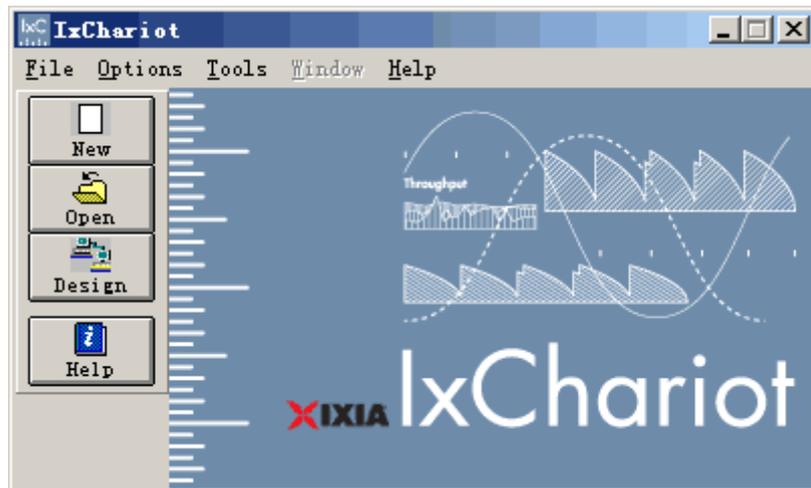# Active Wall Performance Test Report under 100M speed network condition

Benchmarking software:

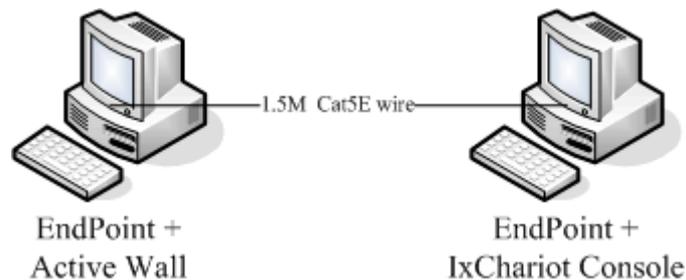Ixia- IxChariot 5.4, which is one of the most professional software for network performance testing.

Network topology

In order to avoid the impact from switch in network, we apply direct connection between two PCs. We used a line of twisted wire (RJ45, Cat5E) with length of about 1.5 meters.

Here is the network diagram:

Hardware configuration:

CPU: AMD Sempron 3100+

Main Board: Colorful C51

Memory: 512MB DDR 400

Network adapter: Integrated chip (Nvidia) on board

(The two PCs are the same)

Software configuration:

OS: Windows XP 32bit

Software: IxChariot EndPoint

(The two PCs are the same)

Active Wall (version 2.0.2007.0828) is installed on one computer (named A), and IxChariot Console (version 5.4) is installed on the other computer (named B).

We remove the protocols except Internet protocols from the two PCs, and stop most of the ineffective services in the service management in Windows XP. We set the network adapters

parameters as default.

Script configuration:

We modified the sample script "Throughput" from IxChariot. Since there are not enough test cycles in "Throughput" script for testing in 100 MB speed network, we change the parameter "file_size" from 100,000 to 500,000 and the parameter "number_of_timing_records" from 100 to 500.
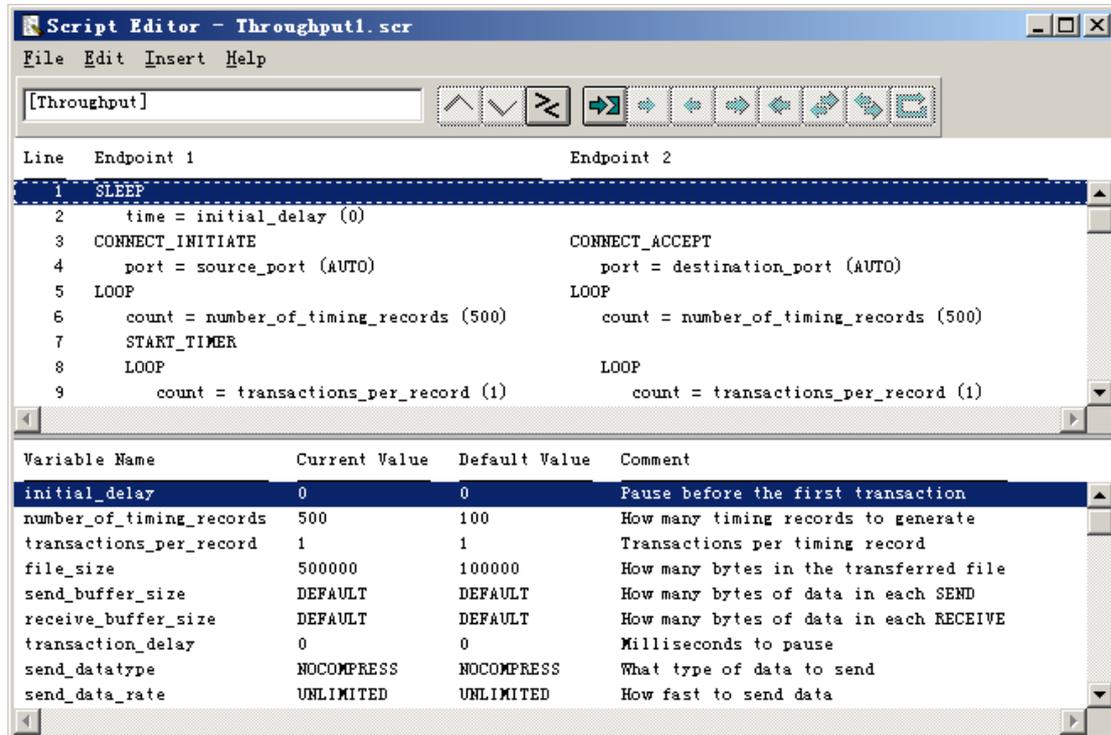
Test procedure:

The purpose of this test is to compare impacts on network transferring speed by the software Active Wall. The tests are executed under three different kinds of conditions:

1. Network without Active Wall, this condition is treated as a standard;
2. Network with Active Wall in, but Active Wall not working;
3. Network with Active Wall in, and Active Wall working well;

We do 5 cycles of tests under each condition and we admit the best test result of the 5 cycles.

Results:

For details please go to the links:

- N0 Test results in network without Active Wall
- N1 Test results in network with Active Wall in, but Active Wall not working
- N2 Test results in network with Active Wall in, and Active Wall working well

Statistics:

Throughput:

	Average(Mbps)	Minimum(Mbps)	Maximum(Mbps)
N0	95.057	70.176	95.238
N1	95.098	72.727	95.238
N2	94.999	83.334	95.238

Response Time:

	Average(s)	Minimum(s)	Maximum(s)

N0	0.042	0.042	0.057
N1	0.042	0.042	0.055
N2	0.042	0.042	0.048

Percentage (Average throughput speed/ response time)

	N0	N1	N2
Throughput	100%	100.04%	99.94%
Response Time	100%	100%	100%

Since the statistics shows little differences among the three conditions test, offset should be ignored, we treat these test results as the same results together.

Conclusion:

Above all, we get a clear comprehension about the software Active Wall impact on network speed and performance. Under the network of 100M speed, Active Wall drivers and working mode will do nothing on the performance. Meantime, when we do the test N2, we see that Active Wall uses CPU 5%~15%. It means that Active Wall consumes 5%~15% of AMD 3100+ CPU performance for network data filtering. If a server machine used in enterprise is configured with higher abilities CPU than AMD 3100+, we believe Active Wall can work more efficiently. Therefore, Active Wall complete fulfills the requests network monitoring and filtering from ordinary enterprise and business.