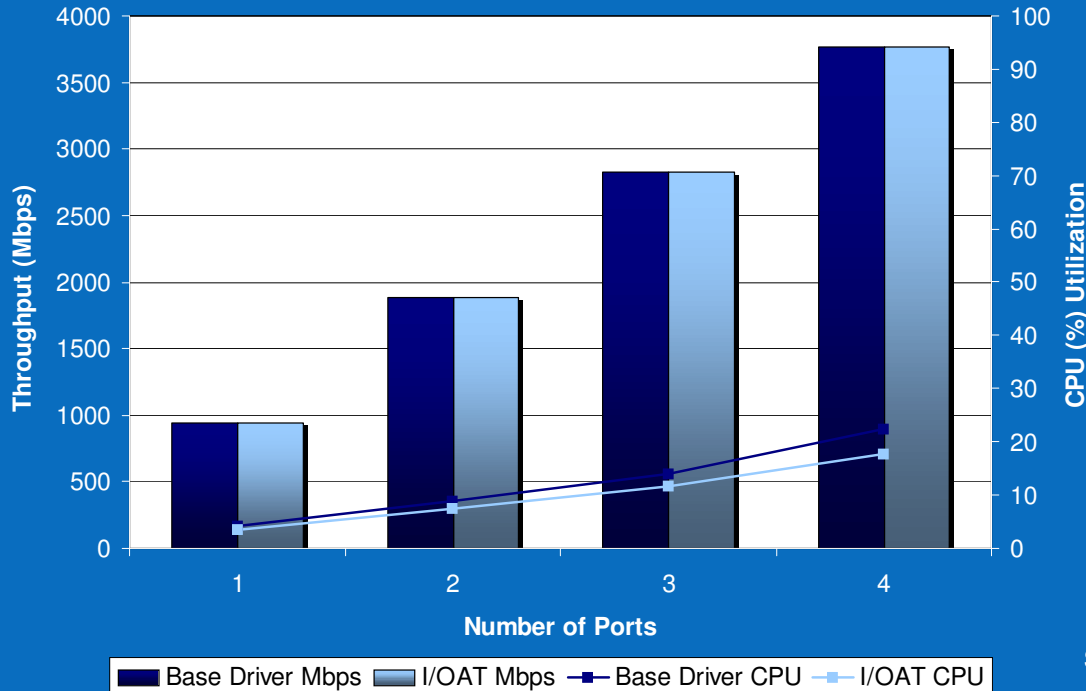


Linux Receive Port Scaling with Intel® I/OAT

Bensley Linux Kernel 2.6.16.1 Std. GbE vs. Intel® I/OAT
64KB Buffer Size Netperf Receive (Rx) Port Scaling Performance Test



Test
Netperf
2 Clients Per Port Under Test
TCP STREAM TEST
Buffer Sizes = 64K Bytes
60 second test iteration
64KB Socket Size
Data Verification Disabled

Bensley Server
Intel® Bridgeport CRB 55
2x 3.2GHz Dual-Core Intel® Xeon® processor
8GB RAM
Linux Kernel 2.6.16.1 patched with Intel® I/OAT DMA v1.5
Base Driver 7.0.38

Clients
Dell PowerEdge 1750
3.4GHz Pentium® 4 processor
Windows XP Professional SP1

Network Configuration
Cisco 6509
Clients connected @ 1000 Mbs

Source: Intel Labs April 2006

Legal Disclaimer:

Performance tests and ratings are measured using specific computer systems and/or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing. For more information on performance tests and on the performance of Intel products, visit (<http://www.intel.com/performance/resources/limits.htm>).



Linux Receive Port Scaling with Intel® I/OAT

Linux Kernel 2.6.16.1 with 7.0.38 Base Driver			Linux Kernel 2.6.16.1 with I/OAT v1.5		
Num Ports	Base Driver Mbps	Base Driver CPU	Num Ports	I/OAT Mbps	I/OAT CPU
1	941	4	1	941	3
	941	4		941	3
	941	4		941	4
2	1882	9	2	1882	7
	1882	9		1882	7
	1882	9		1882	7
3	2834	14	3	2823	11
	2824	14		2823	12
	2824	14		2823	12
4	3765	23	4	3764	18
	3765	22		3764	18
	3765	22		3764	18
Num Ports	Base Driver Mbps	Base Driver CPU	Num Ports	I/OAT Mbps	I/OAT CPU
1	941	4	1	941	3
2	1882	9	2	1882	7
3	2827	14	3	2823	12
4	3765	22	4	3764	18

Test

NetPerf
 2 Clients Per Port Under Test
 TCP STREAM TEST
 Buffer Sizes = 64K Bytes
 60 second test iteration
 64KB Socket Size
 Data Verification Disabled

Bensley Server

Intel® Bridgeport CRB 55
 2x 3.2GHz Dual-Core Intel®
 Xeon® processor
 8GB RAM
 Linux Kernel 2.6.16.1 patched
 with Intel® I/OAT DMA v1.5
 Base Driver 7.0.38

Clients

Dell PowerEdge 1750
 3.4GHz Pentium® 4 processor
 Windows XP Professional SP1

Network Configuration

Cisco 6509
 Clients connected @ 1000 Mbs

Source: Intel Labs April 2006

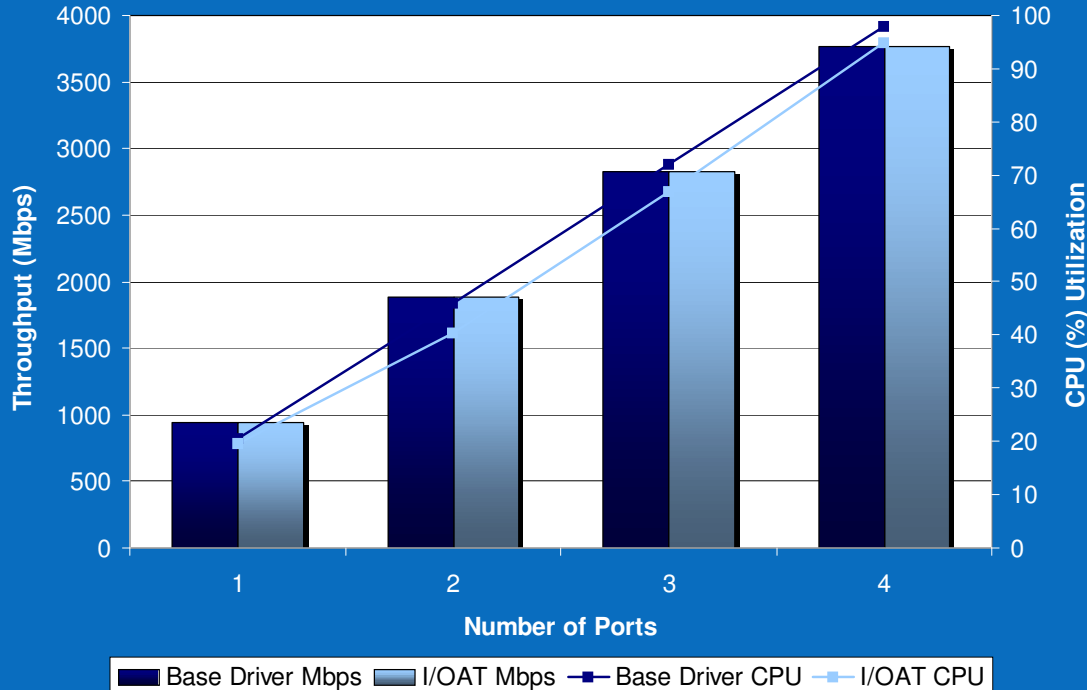
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Linux Receive Port Scaling with Intel® I/OAT Netperf Data Verification Enabled*

Bensley Linux Kernel 2.6.16.1 Std. GbE vs. Intel® I/OAT
64KB Buffer Size Netperf Receive (Rx) Port Scaling Performance Test



Test
Netperf
2 Clients Per Port Under Test
TCP STREAM TEST
Buffer Sizes = 64K Bytes
60 second test iteration
64KB Socket Size
Data Verification Enabled
*(Touched Data)

Bensley Server
Intel® Bridgeport CRB 55
2x 3.2GHz Dual-Core Intel®
Xeon® processor
8GB RAM
Linux Kernel 2.6.16.1 patched
with Intel® I/OAT DMA v1.5
Base Driver 7.0.38

Clients
Dell PowerEdge 1750
3.4GHz Pentium® 4 processor
Windows XP Professional SP1

Network Configuration
Cisco 6509
Clients connected @ 1000 Mbs

Source: Intel Labs April 2006

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Linux Receive Port Scaling with Intel® I/OAT Netperf Data Verification Enabled*

Linux Kernel 2.6.16.1 with 7.0.38 Base Driver			Linux Kernel 2.6.16.1 with I/OAT v1.5		
Num Ports	Base Driver Mbps	Base Driver CPU	Num Ports	I/OAT Mbps	I/OAT CPU
1	941	21	1	941	20
	941	20		941	20
	941	20		941	20
2	1882	46	2	1882	40
	1882	46		1881	40
	1882	46		1881	40
3	2823	72	3	2823	67
	2823	72		2823	67
	2823	72		2823	67
4	3765	98	4	3764	95
	3765	98		3764	95
	3765	98		3763	95
Num Ports	Base Driver Mbps	Base Driver CPU	Num Ports	I/OAT Mbps	I/OAT CPU
1	941	20	1	941	20
2	1882	46	2	1881	40
3	2823	72	3	2823	67
4	3765	98	4	3763	95

Test

Netperf
2 Clients Per Port Under Test
TCP STREAM TEST
Buffer Sizes = 64K Bytes
60 second test iteration
64KB Socket Size
Data Verification Enabled
*(Touched Data)

Bensley Server

Intel® Bridgeport CRB 55
2x 3.2GHz Dual-Core Intel®
Xeon® Processor
8GB RAM
Linux Kernel 2.6.16.1 patched
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