Linux Receive Port Scaling With Intel® I/OAT
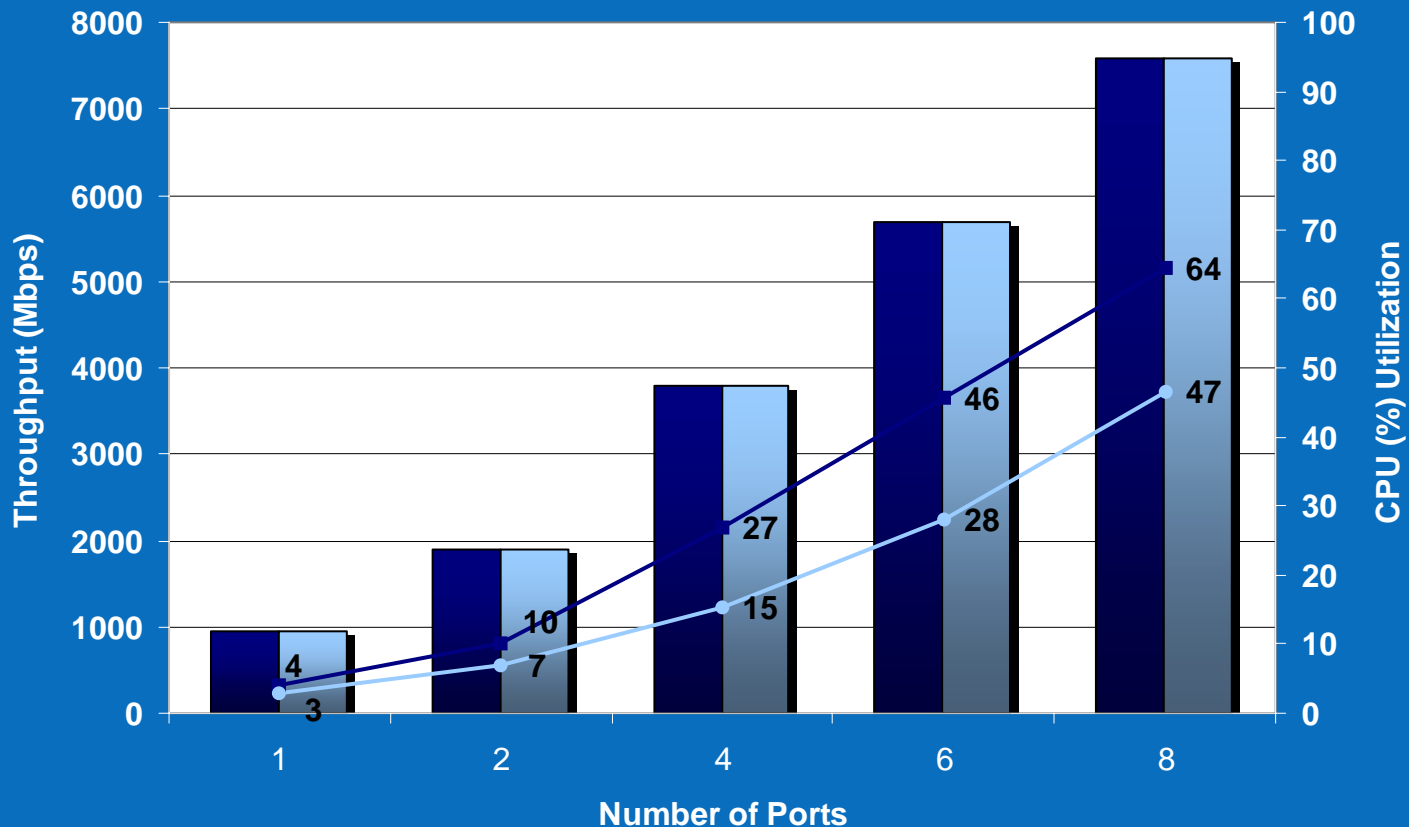

Bensley Std. GbE vs. Bensley with Intel® I/OAT
Linux Receive (Rx) Throughput and CPU Utilization

Legend: Unpatched Kernel Mbps ■ I/OAT Mbps ■ Unpatched Kernel CPU ━ I/OAT CPU ━

Test
Ixia IxChariot* 6.2
6 Clients Per Port Under Test
High Perf. Throughput script
File Size = 1000000 Bytes
Buffer Size = 65535 Bytes
Data Type – Zeros

Bensley Server
Intel® Bridgeport CRB 55
3.2GHz Dual-Core Intel® Xeon® processor X2
8GB RAM
Red Hat* EL4
Kernel 2.6.15 – w/o Intel I/OAT
Kernel 2.6.15 – with Intel I/OAT
Base Driver 7.0.34
Intel® I/OAT v.50

Clients
Dell PowerEdge 750
3.4Ghz Pentium® 4 processor
Windows XP Professional SP1

Network Configuration
Cisco 6509
Clients connected @ 1000 Mbs

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Source: Intel Labs Mar. 2006