

# CERTIFICATION

## SAP Standard Application Benchmarks

The SAP SD standard R/3 Enterprise 4.70 application benchmark performed on June 21, 2005 by HP in Redmond, WA, USA was certified on June 27, 2005 with the following data:

Number of benchmark users & comp.:	18,000 SD (Sales & Distribution)
Average dialog response time:	1.87 seconds
Throughput:	
Fully Processed Order Line items/hour:	1,819,000
Dialog steps/hour:	5,457,000
SAPS:	90,950
Average DB request time (dia/upd):	0.052 sec / 0.066 sec
CPU utilization of database server:	85%
CPU utilization of application servers:	67% (dia: 85%, upd: 19%, msg/enq: 29%)
Operating System database server:	Windows Server 2003 Enterprise Edition (64-bit)
Operating System application servers:	Windows Server 2003 Enterprise Edition (32-bit)
RDBMS database server:	SQL Server 2005 (64-bit)
R/3 Release:	4.70 (32-bit)
Total database disk space:	135 GB

### Configuration:

Database server: HP ProLiant DL585, 4-way SMP, Dual-core AMD Opteron processor Model 875 (2.2 GHz), 128 KB L1 cache, 2 MB L2 cache, 32 GB main memory

### 33 Application servers:

- 1 Dialog servers: HP ProLiant DL740, 8-way SMP, Intel XEON MP, 2.8 GHz, 20 KB L1 cache, 512 KB L2 cache, 2 MB L3 cache, 16 GB main memory
- 3 Dialog servers: HP ProLiant DL740, 8-way SMP, Intel XEON MP, 2.8 GHz, 20 KB L1 cache, 512 KB L2 cache, 2 MB L3 cache, 4 GB main memory
- 4 Dialog servers: HP ProLiant DL740, 8-way SMP, Intel XEON MP, 2.8 GHz, 20 KB L1 cache, 512 KB L2 cache, 2 MB L3 cache, 8 GB main memory
- 2 Dialog servers: HP ProLiant DL740, 8-way SMP, Intel XEON MP, 2.0 GHz, 20 KB L1 cache, 512 KB L2 cache, 2 MB L3 cache, 4 GB main memory
- 5 Dialog servers: HP ProLiant DL740, 8-way SMP, Intel XEON MP, 2.0 GHz, 20 KB L1 cache, 512 KB L2 cache, 2 MB L3 cache, 8 GB main memory
- 1 Dialog servers: HP ProLiant DL760, 8-way SMP, Intel XEON MP, 2.8 GHz, 20 KB L1 cache, 512 KB L2 cache, 2 MB L3 cache, 16 GB main memory
- 1 Dialog servers: HP ProLiant DL760, 8-way SMP, Intel XEON MP, 2.0 GHz, 20 KB L1 cache, 512 KB L2 cache, 2 MB L3 cache, 4 GB main memory
- 7 Dialog servers: HP ProLiant DL760, 8-way SMP, Intel XEON MP, 2.8 GHz, 20 KB L1 cache, 512 KB L2 cache, 2 MB L3 cache, 8 GB main memory
- 3 Update servers: HP ProLiant DL740, 8-way SMP, Intel XEON MP, 2.0 GHz, 20 KB L1 cache, 512 KB L2 cache, 2 MB L3 cache, 8 GB main memory
- 5 Update servers: HP ProLiant DL760, 8-way SMP, Intel XEON MP, 2.8 GHz, 20 KB L1 cache, 512 KB L2 cache, 2 MB L3 cache, 8 GB main memory
- 1 Message/Enq. server: HP ProLiant DL380 G3, 4-way SMP, Intel XEON, 3.06 GHz, 8 KB L1 cache, 512 KB L2 cache, 1 MB L3 cache, 4 GB main memory

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