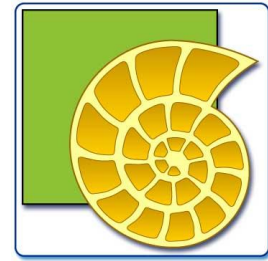


Hardware recommendations for Oracle databases



1 Disclaimer

This document makes hardware recommendations for an Oracle database server running scopeArchiv. Hardware recommendations are to be seen as such. scope solutions does not guarantee a certain performance nor is liable in any case.

2 Recommendations

A database server's hardware does have significant impact on performance. However, there is no silver bullet and as such there is not *one* correct configuration. The optimal configuration depends on several factors:

- Number of users accessing the database
- Size of the database (numbers of records)
- Required availability of the server
- Required fault-tolerance

scope solutions created example configurations for three archive types of different size:

- Small Archive: less than 500'000 records
- Medium Archive: 500'000-2'000'000 records.
- Large Archive: more than 3'000'000 records

In terms of hardware configuration the following general statements are true:

- Two or more processors are better than one¹.
- 2 GB of memory is the absolute minimum. The more memory is available to the server the better.
- RAID 10 is the optimal RAID configuration for oracle database files². This requires at least 4 disks. (The OS should be on separate mirrored disks.)
- For optimal disk performance fast spinning, low latency SAS/SCSI disks should be considered.

Component	Small Archive	Medium Archive	Large Archive
1st Processor	Dual Core Intel 2.66GHz 8MB Cache	Dual Core Intel 3.2GHz 8MB Cache	Dual Core Intel 3.4GHz 16MB Cache
2nd Processor	None	Optional ¹	Recommended ¹
Memory	≥ 2 GB	≥ 4 GB	≥ 8 GB
RAID level	None or RAID 5	RAID 1 for OS RAID 10 for Data	RAID 1 for OS RAID 10 for Data
Hard disks (hot-pluggable)	≥ 3 SAS-disks, 15.000 U/Min, ≤4.5ms ≥ 70 GB	≥ 6 SAS-disks, 15.000 U/Min, ≤4.5ms ≥ 70 GB	≥ 16 SAS-disks, 15.000 U/Min, ≤4.5ms ≥ 70 GB
Redundant power supply	Recommended	Recommended	Recommended

¹ In regard to database servers additional processors make only sense, if the disk subsystem is fast enough, or if lots of memory is available.

² For details see Oracle Metalink Note 30286.1