

Re: Performance comparison Alpha ES40 vs Itanium rx3600

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Syltrem wrote:

That server (the ES40 to be replaced by some Itanium box) hosts 6 Oracle databases of which 1 is heavily accessed, plus all clients (300) that run different applications (mostly 4GL apps), some of which use RMS files and others Oracle.

A simple answer here is almost certainly a wrong answer.

Whether a move to OpenVMS I64 and an Integrity server will speed your operations, or hinder them, depends greatly on various factors and data not yet in evidence.

At the core, the typical OpenVMS I64 configuration is faster than the typical OpenVMS Alpha AlphaServer configuration, and the Integrity rx3600 is a very nice and very fast box. But whether it will be faster for your specific installation and your specific applications is a far more difficult question.

A tool like the very ancient "QUALIFY" might be nice, but it's not an easy problem to solve.

The key consideration here involves what factor(s) are currently limiting your performance, and whether (or not) an Integrity server will resolve these. If the application environment is pounding on a disk spindle, for example, then even massive upgrades in processor speed probably won't help aggregate performance.

It also has Advanced Server (Pathworks) with 500 connections and 50 open files, and a dozen Progress databases.

IIRC, the Advanced Server product isn't available on OpenVMS I64. The target Microsoft Windows SMB/CIFS server environment involves an HP port of the Samba server and its accouterments, and this Samba SMB/CIFS stuff is AFAIK in field test.

And also a few other minor things.

The MONITOR SYSTEM reports
Processes – 450
CPU Busy (234) — 4 CPUs

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Direct I/O Rate (3956)

Buffered I/O Rate (2819)

If you want an answer with a degree of certainty (rather than the guestimates that I or others can provide here), then I might suggest that there be a prototype attempted. Use one or more of your applications — some sort of a representative sample — and load it and test it on the Test Drive system or equivalent HP prototype environment to see how fast it goes. I'd expect the server will PROBABLY be faster, though the actual observed aggregate performance could range from GLACIAL to GONZO, depending on what performance limits exist within your current configuration. :-)

The other approach is to bring a local, borrowed or leased test system on-line, and use that to qualify and to stage the migration. You or somewhat you designate will be tweaking and/or porting code here after all, and that's a task best done on a server reserved and dedicated for testing, for target practice and for porting and development; on a platform entirely disconnected from a production server and its environment.

There is minimal pagefaulting but not much memory left (XFC cache 77MB and Free List 18MB)

Those numbers are quite normal during daytime.

An XFC cache of 77 MB does not look to be a particularly large cache, and would look like a potential performance constraint. Is this AlphaServer ES40 system already configured near or at the upper limits of its physical memory addressing? I've seen single-user OpenVMS Alpha workstations operating with half-gigabyte XFC caches. Cache hit rates factor in here — if your database doesn't use XFC, then having a large cache doesn't matter. But if there are applications that can or do use the XFC (read) cache, then having an undersized cache forces disk I/O for those read; cache misses.