MIGRATING FROM SUN RISC TO INTEL XEON: FLATTEN TCO, ACHIEVE UNPRECEDENTED ROI

If you're seeking ways to carve out costs from your IT budget—as most businesses are these days—you don't have to look far. By migrating your enterprise applications from a single large RISC machine running UNIX to multiple industry-standard Intel Xeon-powered Dell PowerEdge servers running Red Hat® Enterprise Linux®, you can achieve your cost-cutting goals while maximizing your return on investment (ROI) as well as performance and scalability.

We created the following migration scenario:

	MIGRATING FROM RISC/UNIX SERVER	MIGRATING TO RED HAT–DELL–INTEL SOLUTION
Database	Oracle Enterprise Edition	MySQL Enterprise Edition (EE) Server
Server	3 Sun Fire 15K servers, M5000 2.15GHz (8ch/16co)	2 Dell PowerEdge servers, Intel T610 Xeon 5570 2.93Ghz (2ch/8co)
Operating System	Solaris	Red Hat Enterprise Linux
Application Server	Apache	Apache
System Management Software	None	BMC Patrol

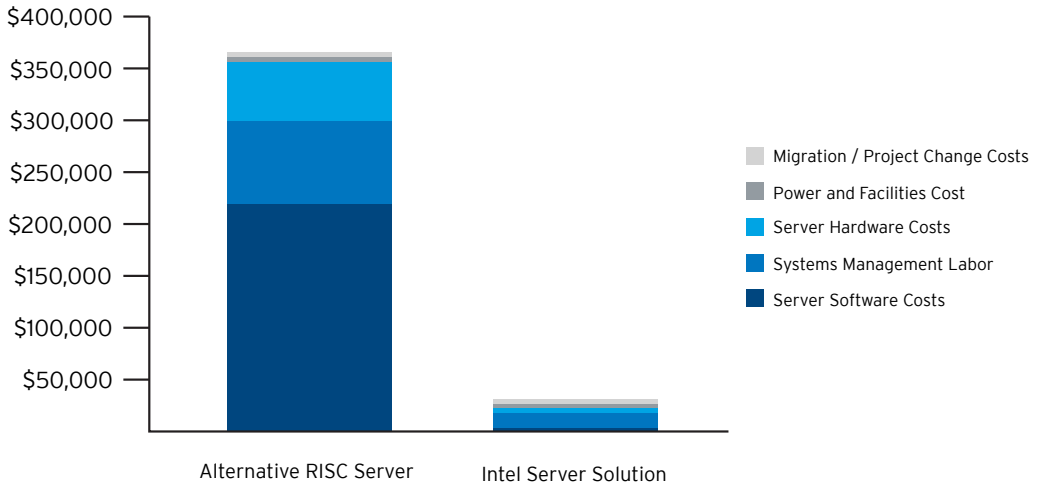
Under this migration scenario, the Red Hat-Dell-Intel solution reduced the total cost of ownership (TCO) by $3.5 million over a three-year period. The sum of the direct and indirect benefits of the migration was $16.4 million, making a possible ROI of 15,037%, and a payback period of just three months.

MASSIVE DIRECT COST SAVINGS RESULT IN SIGNIFICANTLY LOWER TOTAL COST OF OWNERSHIP

First, the hard cost savings. The actual TCO of deploying Oracle on a proprietary RISC/UNIX platform is significantly higher than that of running a similar MySQL application on Intel Xeon-based Dell PowerEdge servers under Red Hat Enterprise Linux (see Figure 1). Here's a summary of what the latter platform would allow a business to achieve under our three-year scenario:

- **Significantly reduced server hardware costs.** Purchasing the two Sun Fire servers ($655,000) the scenario above had 3 of these cost more than 20 times what two Intel Xeon-based Dell PowerEdge servers ($30,000) offering comparable capacity would cost.
- **Lessened server software costs.** The total server software costs under the proprietary RISC/Unix platform ($2.32 million) were more than 33 times what they would be under the Red Hat-Intel-Dell platform ($70,000).
- **Decreased power and facilities expenses.** Because of the energy efficiencies enabled by the new Intel Xeon processors, enterprises moving to the Dell PowerEdge servers running Red Hat Enterprise Linux can cut their power and facilities costs by nearly 20-fold, from $76,000 to $4,300.

ORACLE TCO

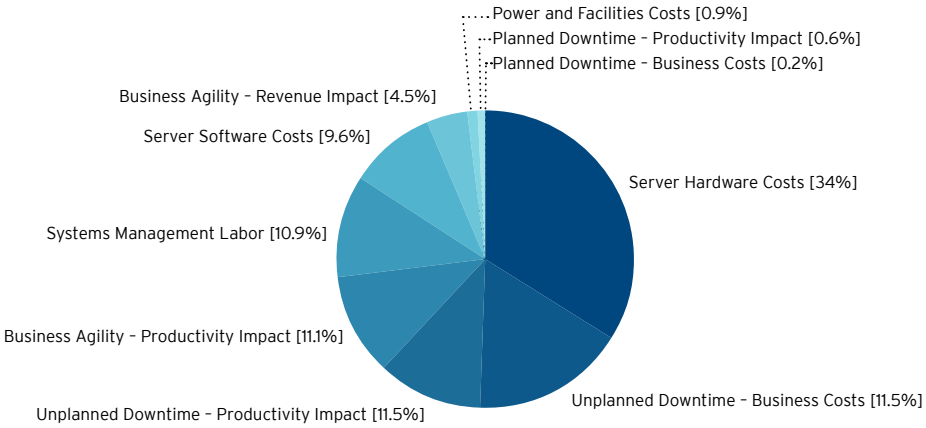


A STRAIGHTFORWARD MIGRATION PATH – AND AN EXTRAORDINARY ROI

When you compare the total benefits—both direct ("hard") cost savings and indirect ("soft") returns—delivered by the Red Hat-Dell-Intel solution, the results are dramatic. Implementing the new, industry-standard solution produced $13.6 million of three-year cumulative net present value (NPV) benefits.

- **Reduced downtime (both planned and unplanned).** The rock-solid reliability of the Red Hat software and Intel-based Dell hardware means that planned downtime to perform routine maintenance, patches, and upgrades is substantially less than for proprietary RISC/UNIX environments. Even unplanned downtime is significantly reduced for the same reasons. Adding up the benefits of reducing both planned and unplanned downtime results in $4.7 million. Of that, the potential cost reductions of minimizing unplanned downtime turns out to be the most valuable after the direct hardware savings, accounting for more than $4.6 million, or 28.2% of the total ROI from migrating (see Figure 2).
- **Improved business agility.** The flexibility and scalability of the Red Hat-Dell-Intel platform means you can easily add capacity as you grow, enabling you to respond more swiftly to changing business requirements ($1.8 million in productivity gains). And the money you'd save by moving to this platform could be redirected to more strategic initiatives—both within IT and for the business as a whole—giving you an edge over the competition ($734,000 in revenue gains). This means that 15.6% of the ROI from migrating to the industry-standard platform came from improved business agility alone.
- **Increased productivity.** The ease of use of the industry-standard Red Hat-Dell-Intel platform, coupled with the large base of workers skilled in both the hardware and the operating system, makes your IT workers infinitely more productive than under the RISC/UNIX scenario. Plus, end users are also more productive because downtime has been reduced, giving them access to the tools they need to get their jobs done. This results in $3.8 million in productivity gains. All in all, increased productivity accounted for 11.7% of the ROI benefits of migrating.

REDUCED DOWNTIME



EXPERT MIGRATION ASSISTANCE

Currently stuck with a proprietary platform and unsure how to proceed? We provide pre-sale engineering validation and configuration services designed to help you migrate from UNIX to Red Hat Enterprise Linux by providing scoping, planning, and implementation assistance for end-to-end streamlining of the entire process. We have also created step-by-step guides for performing the migration in-house or with the help of your preferred professional services vendor.

Call your Intel, Dell, or Red Hat account or services representative today for more information on the Red Hat Enterprise Linux-Dell solution. You can also contact us at: Dell-Sales@redhat.com or visit: www.redhat.com/intelligence/dell.

METHODOLOGY/CONFIGURATION USED IN THIS ANALYSIS

These figures were calculated using the Intel RISC Migration TCO Calculator with industry research metrics and financial calculations contained in the Alinean ROI Analyst™ software, an independent financial modeling tool developed by leading independent ROI consultancy Alinean (http://www.alinean.com).

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