

# Top 10 things to consider



You've invested millions of dollars in your IT environment.

You're under pressure to help create a unique competitive advantage while holding down costs — protecting your investment is crucial.

Consider your alternatives for the future:

**A) a fundamentally complex, costly and technically-challenged Linux-on-mainframe solution from IBM, or**

**B) a simple, proven, world-class solution from Sun™ with new world records to prove it.**

The mainframe has been a viable solution for the traditional data center, however, it is an uncertain deployment platform for modern e-Business applications.

## Consider this:

- 1 — Despite a handful of traditional S/390 applications, the overall portfolio of ported applications for Linux on S/390 remains slim, and ISV support is slimmer.
- 2 — Linux on the mainframe is far from free. This solution carries a high combined total cost of ownership when taking into account the cost of hardware, software, extra fees, charges and other professional services that may be needed later.
- 3 — Combined mainframe and Linux staffing is a major obstacle to supporting the mainframe in many organizations (Source: Cutter Consortium).
- 4 — Linux-on-mainframe brings hardly any RAS enhancements over Linux on an Intel system.
- 5 — Linux achieves its well deserved reputation for reliability through the simplicity of running a small-footprint Unix-like kernel on commodity hardware in horizontally scaled infrastructure applications. These advantages are liabilities on the mainframe.
- 6 — Linux-on-mainframe has shown questionable performance based on user experiences where in a standard test, a 4 CPU G6 was beaten 20 to 1 by a 4 CPU Sun Enterprise 420.
- 7 — No company, including IBM, has announced formal benchmarks for Linux-on-mainframe.
- 8 — Linux-on-mainframe causes CPU overhead. Not only do many "privileged" instructions require costly emulation by VM's software, but there is also a "double page" as applications are paged and swapped by Linux and then Linux by VM.
- 9 — Linux-on-mainframe makes inefficient use of RAM. Not only must each Linux copy be separately loaded with no instance sharing, but since Linux cannot differentiate between VM virtual storage and RAM, Linux-on-mainframe uses both.
- 10 — There is slow network connectivity. Only a few dozen Linuxes can connect to an IBM OSA network connection using intermediary TCP/IP software stacks, plus every single packet must go through a separate VM before its final destination.

## Choose A Winner

Technically speaking, if you want scalability, RAS, manageability, and top performance, then Sun is the clear technology choice.

The Solaris™ Operating Environment (OE) is a world-class winner. Solaris 8 OE is now the highest rated UNIX® Operating Environment, according to the results of the 2001 *Unix Function Review* performed by D. H. Brown Associates. Solaris 8 also has the highest degree of UNIX ISV enthusiasm (Source: Gartner Group), unique RAS functionality, industry leading resource management, and three times the SMP scalability of AIX. Our hardware delivers real-world performance. Recent world records put Sun at the top on performance benchmarks such as SAP-SD/Oracle 2-Tier and SPECjbb2000 benchmarks, achieving in some cases 250% better performance than IBM. Not to mention that our SPARC™ systems and the Solaris OE are all binary compatible and have single development focus with UltraSPARC™, which recently won the *Microprocessor Report 2001 Analysts Choice Award* for Best Server/Workstation Processor.

## Lower Your Cost of Ownership

Our promise is to help lower your total cost of ownership. To that end, Sun has the best offering by far, allowing our customers to leverage their investments in applications, operating systems, administration, training and the like, across their corporate data center. Our product offerings show this commitment, from our unique interconnect technology and Sun Open Net Environment (Sun ONE) to our Mainframe Affinity Program and re-hosting products. And at Sun, we believe innovative technology solutions start with best-of-breed partnerships, so we bring the world's leading technology suppliers to the table with us.

Gain a competitive edge with Sun and get the most out of your existing network environment. Contact your local Sun representative or authorized partner today.



take it to the n<sup>th</sup>

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## WORLDWIDE HEADQUARTERS

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**Last year,  
50 IBM mainframes  
met Darwin face to face.**

**And naturally,  
they weren't selected.**

Call it survival of the fittest: In 2000, Sun servers won out over 50 slow-moving IBM mainframes. Proving once again that the more evolved the species, the better equipped it is to survive.

With the Sun Enterprise™ 10000, the UNIX® server that changed virtually everything, Sun introduced mainframe-class power and reliability to server technology. That was four years ago, and IBM still hasn't come close to matching it. In March, we brought the same RAS capabilities to our midframe line of servers as well. Now, with the recent introduction of the Sun Fire™ 15K, the evolution of server technology just took an enormous leap forward.

