

Thursday, November 2, 2006

A use case for virtualisation

At last i found a really sensible usage for virtualisation: Imagine ... you have a long running job (let's assume a simulation running for six weeks ... not really uncommon) on you system. You don't have any checkpointing capability in you software. After four weeks you detect a problem with one of you CPU fans. You didn't buy a system with hot swappable fans. You experience tells you: "Gosh ... 2 or 3 weeks and the fan is toast", without fan the CPU will overheat, an overheated CPU will die in his personal thermal hell.

Okay ... without virtualization: You are in severe problems. You can only hope that the fan will survive the next 4 weeks. Or restart the system on a fresh server, you will lose 4 weeks, but not 6. Neverthelessr you project plan are toast as well as your fan. Murphys law mandates that the fan will fail on the system with the simulation with the highest management attention. No raise. No promotion.

With XEN: You detect the failing fan. You choose a fresh server. You start manually "live migration" to the fresh server. You don't loose time. You get a promotion and a raise (Okay, this is too marketing weaselish. Forget this. Nobody will know you as they only know your name when you are responsible for the failed system. Old sysadmin rule.).

With Solaris and XEN: The Fault Management Architecture detects a problem pattern and concludes "this system will fail from fatal fan fuckup. Sooner or later" and starts automaticallya live migration with XEN on Solaristo an assigned pool of spare servers. You come to work and see in you system management "simulation-432 migrated to simulation-855. Nobody got hurt". Still: Nobody will know of your name, although you saved at least 4 weeks of project time. No promition. No raise. But you slept well without interruption and can continue to read at safaribooks at an obscure topic you may need for your next employer ...

Posted by Joerg Moellenkamp in English, Oracle at 18:24