

Transparent Page Sharing - need common ...



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Dec 19, 2005 In order to better understand memory resource management, I have been reading Kit Colbert and Rajesh Venkatasubramanian's VMworld presentation (TA21 - Understanding "Host" and "Guest" Memory Usage And Related Memory Management Concepts) and would like to know:

Where common memory pages exist across multiple VMs, in order for transparent page sharing to take place, do the pages need to be loaded into the same base memory address on each guest?

Or, to put it another way, can transparent page sharing be used to optimize files which were rebased by the guest OS upon loading?

Also, once the Balloon driver has pinned memory within the guest and passed it back to the host, how does the guest (Windows) OS or application take back this memory when required?

Windows guests, if that makes any difference.

Thanks. Tags: esx3, performance, memory, windows



[larstr](#) 2,382 posts since

Mar 11, 2004 **1. Re: Transparent Page Sharing - need common load addresses in the guests?** Oct 12, 2007 4:39 AM

1. No, they dont. Even a single VM can get mutliple equal pages shared.
2. The balloon driver is just a process inside the VM that allocates a certain amount of memory. This leaves less memory available to the rest of that guest, and the guest os has to handle this as it would if another application used all this memory. When memory is available in the system again, the size of the balloon driver will decrease and the guest might swap things back from its OS provided swap file if needed.

Lars



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Dec 19, 2005 **2. Re: Transparent Page Sharing - need common load addresses in the guests?** Oct 12, 2007 5:04 AM

in response to: [larstr](#) Wow, that was quick! Thanks, I visited your home page as well, will give vmktree a try.