

# Memory Overcommitted Explanation

The total configured memory sizes of all virtual machines may exceed the amount of available physical memory on the host. However, it doesn't necessarily mean memory is overcommitted. Memory is overcommitted when the combined working memory footprint of all virtual machines exceed that of the host memory sizes.

Because of the memory management techniques the ESXi host uses, your virtual machines can use more virtual RAM than there is physical RAM available on the host. For example, you can have a host with 2GB memory and run four virtual machines with 1GB memory each. In that case, the memory is overcommitted.

For instance, if all four virtual machines are idle, the combined consumed memory may be well below 2GB. However, if all 4GB virtual machines are actively consuming memory, then their memory footprint may exceed 2GB and the ESXi host will become overcommitted.

Overcommitment makes sense because, typically, some virtual machines are lightly loaded while others are more heavily loaded, and relative activity levels vary over time