



# Virtualization & Memory

Kingston is often asked why we're interested in virtualization, so we designed this Q & A to explain how Kingston memory fits into the virtualization market.

## **Why is Kingston interested in the Virtualization market?**

Because each server that is virtualized needs to have enough memory installed in order to properly support its Virtual Machines and their applications.

## **Does Kingston have a product that does something specific for virtualization?**

No, our memory is just that — memory to be installed in the physical server.

## **Why does a server need more memory for virtualization?**

There are two key reasons to have more memory available — to run the virtualization software and to support all Virtual Machines with their applications without performance impact.

## **Do the virtualization software companies recognize memory as a key hardware component?**

Yes. In fact, Kingston worked with the leader in the virtualization space, VMWare, to create a technical paper about the role of memory in VI3 – their enterprise server virtualization platform.

## **Isn't virtualization supposed to reduce hardware requirements?**

Yes. Key drivers for IT adoption include the many benefits in virtualizing a data center and consolidating server hardware. But each of the virtualized servers should have enough physical memory to ensure a successful consolidation.

## **Don't the virtualization software companies include memory management features to reduce memory requirements?**

Yes, virtualization software often include features to manage memory overcommitment. VMware provides memory sharing and swapping/ballooning capabilities to dynamically share and reallocate limited memory resources. However, with enough physical memory, the performance impact of these features is minimized.

## **What is a virtual infrastructure?**

In an IT environment that has been virtualized, the virtual infrastructure is a layer that consists of the shared pool of processors, storage, memory and other resources. On top of this layer, Virtual Machines can be set up and tailored for individual departmental use. This is where Kingston server memory fits into the solution — our memory is a key part of the virtual infrastructure.

\* For more information on the role of memory in VI3, please read the whitepaper located here:

VMware site: <http://www.vmware.com/vmtn/resources/605>

Kingston site: [http://www.kingston.com/branded/pdf\\_files/Final\\_esx3\\_memory.pdf](http://www.kingston.com/branded/pdf_files/Final_esx3_memory.pdf)

