## FAQ

FAQ about...

# Server memory configuration optimisation

performance + capacity - power = your solution KingstonConsult

#### Our servers deliver what is expected of them why would we need to look at optimising the memory configuration?

- Firstly, the latest generation of servers can be equipped with a very high amount of memory modules to the extent that the purchase price for the memory can be as high as the server itself.
- Secondly, server memory configuration has today become a complex matter. If not executed expertly in the first place the configuration can create many issues such as wrong modules installed, an un-scalable configuration, memory related energy Operational Expenditure over a five year period being higher than Capital Expenditure, server not performing as it should etc.

#### What is an optimised memory configuration?

When the memory configuration is aligned to support business objectives with memory scalability, avoiding memory overprovisioning while keeping operational expenditure VS capital expenditure under control.

This is what Kingston Technology strives to achieve when supporting its customers.

#### What is memory scalability?

This is achieved when the server's memory configuration is future proof.

#### How does memory scalability affect my organisation?

Organisational business needs change overtime. Today you may need a certain amount of memory to support your business, however this is very likely to change in the short-term. If the configuration is scalable then you will have free memory slots to add more memory capacity to support business expansion.

However, if all the memory slots are filled up when you initially configure the memory then you will need to either purchase a new server or remove the original memory before installing new memory modules leading to un-budgeted capital expenditure.

#### Why is memory scalability an issue?

Based on customers' feedback OEMs do not always consider scalability when configuring the server initially. Don't forget the server is delivered pre-configured and the lid is closed... Kingston can help you resolve this.

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#### How can memory configurations impact ROI?

Memory will influence servers in different ways, which in turn can allow you to expand your business activities, consolidate your hardware or improve energy efficiency or the performance of the server. Depending on the business objectives Kingston looks at memory power, performance or capacity to impact ROI.

#### Why is power efficiency necessary?

Energy costs over a certain amount of time can be higher than the capital expenditure of purchasing the memory itself in the first place.

#### How many configuration scenarios or solutions are there?

There are many different solutions and it is impossible to quantify.

#### Why is memory configuration complex?

There are many elements that contribute to making it complex. It all starts with what the business objectives are this will affect the configuration itself, which is influenced for example by the size of the modules, the capacity, the speeds, the voltages, the number of ranks etc.

#### Servers are delivered pre-configured why do I need Kingston?

Organisations assume that the memory on the server has been optimally configured by the OEM. In fact, very often servers are delivered with memory inside and are ready to be installed. If left unchecked there can be hidden, unforeseen costs.

By working with Kingston you are able to receive a second independent opinion on whether the memory configuration you are planning or upgrading to is optimised.

### Do I need to buy Kingston memory after receiving expert advice from Kingston?

No.

## Will using Kingston's server memory void the server's warranty?

No.

- Firstly, Kingston server memory is designed, and built to be functionally exactly equivalent to OEM server memory. Furthermore, each module is tested to be 100% compatible with the server it was designed to support.
- Secondly, an excerpt of our legal statement based on article 101 of the European treaty says:

An explicit or implicit 'warranty tie' by a PC OEM manufacturers would amount to illegal tying under Art 101 of the TFEU (European Treaty), and equivalent laws in each Member State, where: There is a brand-specific aftermarket for replacement parts for that PC OEM's products; the PC OEM has a high share of supply in that market; and the PC OEM is illegally seeking to protect that position by dissuading 'captive' customers of its primary products from sourcing more cost-effective, quality product from anyone else.

You can access the European treaty's article 101 at:

http://eur-lex.europa.eu/LexUriServ/LexUriServ. do?uri=CELEX:12008E101:EN:NOT

• Thirdly, due to the above European Treaty article OEMs have to publish online disclaimers confirming that installing Kingston memory on their servers does not void servers' warranty. Below are HP's, Dell's and IBM's online warranty statements:

HP warranty statement:

"HP systems are able to use memory from third party suppliers that is of the same specification as that provided by HP."

#### Dell warranty statement:

"Adding software, external devices, accessories, or parts to your Dell computer after it has been shipped from Dell will not void Dell's limited warranty."

IBM warranty statement:

"Adding third-party items does not void the IBM Machine warranty"

Source links available on demand.

## To find out how Kingston can help you email us at: KingstonConsult@kingston.eu

## What do I do if the OEM is coercing me to buy memory from them?

Ask the OEM to confirm their verbal statement in writing.

## How will Kingston support me if I buy Kingston server memory?

You will be supported by KingstonCare which includes:

- A service agreement is created between yourself, your service provider and Kingston to ensure that a technician intervenes in case of an issue with Kingston server memory and that costs are reimbursed.
- On-site spare costs so that you can meet the tightest SLAs. This service is available upon qualification.
- Advance replacement if our server memory fails you, contact us and we will send you a replacement without any delays.

#### What is KingstonConsult?

KingstonConsult services includes:

- A server assessment
- Server configuration training
- Evaluations for proof of concept
- All services designed to help optimise your server configurations.



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