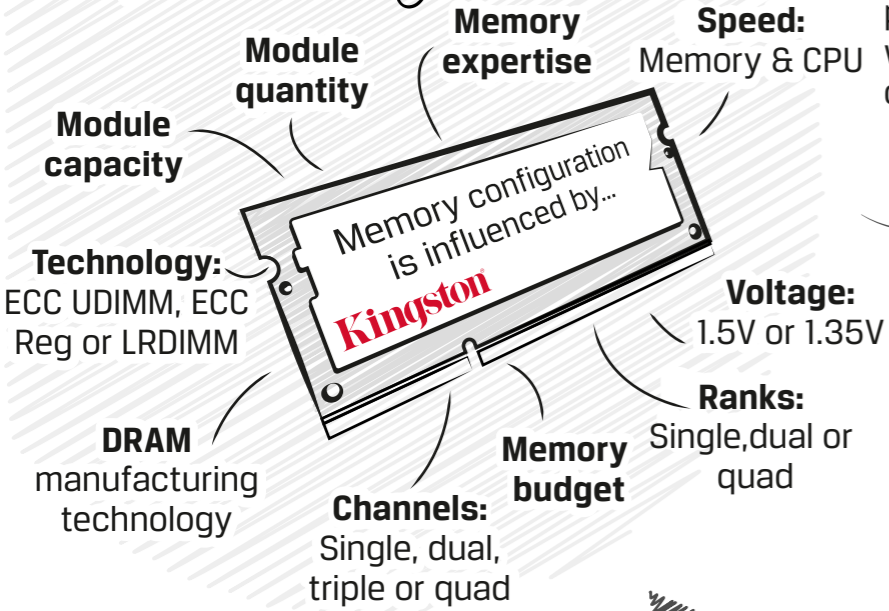


Memory configuration is complicated today:

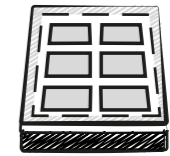
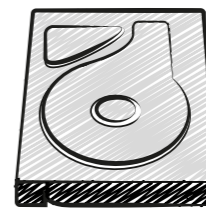


184%
greater performance per watt for SSD array over HDD array

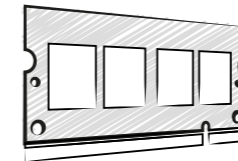
91%
more orders per minute

51%
less power use

HDD array can only support **39%** CPU utilisation before saturation



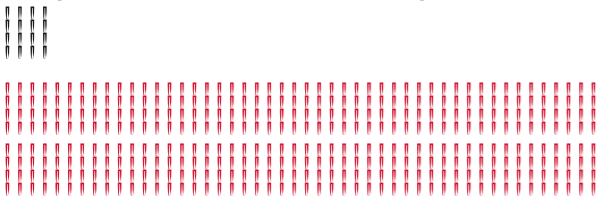
SSD array can handle **92.9%** CPU utilisation before saturation



240%

Quad channel memory performance increase over single channel memory

An Intel server 15 years ago only had four memory slots



An Intel server today can have up to 96 memory slots

Memory configurations

768GB	Orders: 99,796 p/min	Orders: 36,513 p/min	Orders: 25,664 p/min
	Number of VMs: 30	Number of VMs: 10	Number of VMs: 7
	Power per VM: 13.33W	Power per VM: 26.63W	Power per VM: 34.8W
		256GB	192GB

Performance

Complex modelling
Audio and video editing
Banking trades
Transactions per second

Capacity

Virtualisation
SQL databases
In-memory databases
Big data

Power Efficiency

Reduced power draw
Less heat dissipation
Reduced cooling requirements

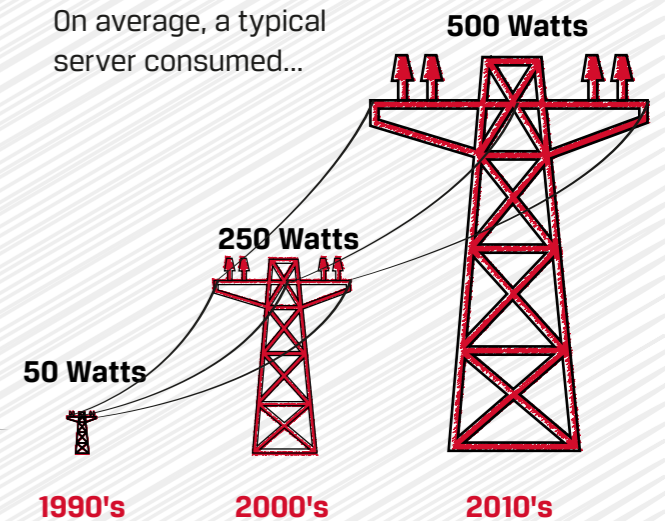
Up to 20% of DC servers are 'ghost servers'.

These servers are unused or underutilised (but they still cost money to run).



Server power consumption

On average, a typical server consumed...



Up to **30%** of a DC's running expense can be power

Sources: zdnet.com, datacenterknowledge.com, Mozilla, Wired Magazine, University of California, own data



Focusing on performance, power & capacity, KingstonConsult experts at Kingston Technology offer onsite server assessment, evaluations, testing and training for memory & SSD. www.kingston.com/think

