

IBM Connect 2015

Seize the Moment

09/06/2015

Betere datagestuurde beslissingen nemen met flash storage

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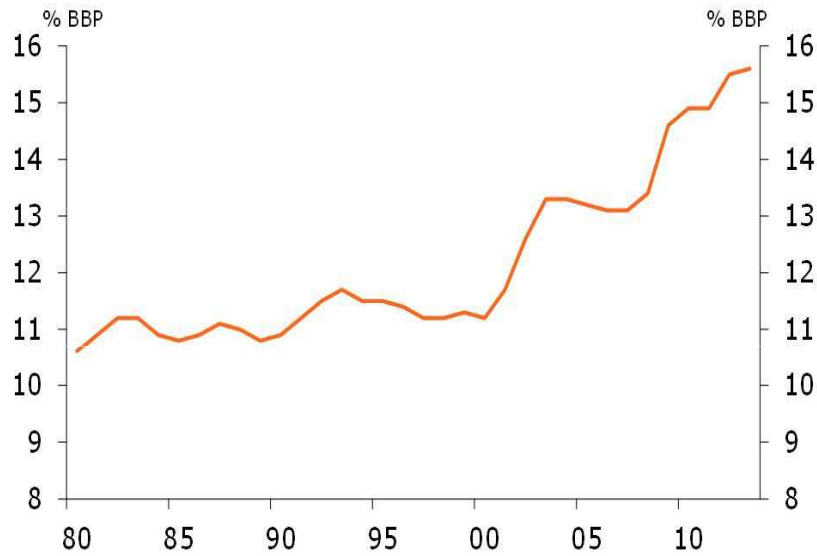


A Prescription For Healthcare Success



Martijn van Veen
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Total health costs – percentage of GDP



Mobile health apps are becoming a regular part of care



Clinicians that believe mobile apps will become important to physicians for patient health management over the next 5 years

Top four mobile medical application categories used by respondents



Customer Care and Innovation



HagaZiekenhuis (Haga) is a leading general hospital and also top clinical hospital that provides medical care to residents in and around The Hague.

HagaZiekenhuis has approximately **4,000 employees, including 250 doctors and specialists and 700 nurses.** HagaZiekenhuis has three hospital locations and two external clinics.



Client Situation Issue

Main obstacle was the spread of *Electronic Patient Record* (EPR) tools is the impact that their integration with pre-existing systems may cause, even on the business organization.

Therefore:

- EPR (Electronic Patient Record – availability)
- Low performance in SAP IS-H and Infrastructure response time
- Waiting times for Patients
- Higher Costs



Solution Process

- After **assessing** the current environment we proposed 3 different solutions: Expand installed IBM Storage, v7000 and **FLASH** as a long shot.
- In week 8 a clear **timeline** with client was set, Haga made a commitment on TCO.
- Good **teaming** and creativity between IBM and BPSolutions enabled us to get the right solution for the price to satisfy our client Haga
- Solution implementation was done **within 9 weeks**, performance issues were all cleared !



Film Haga



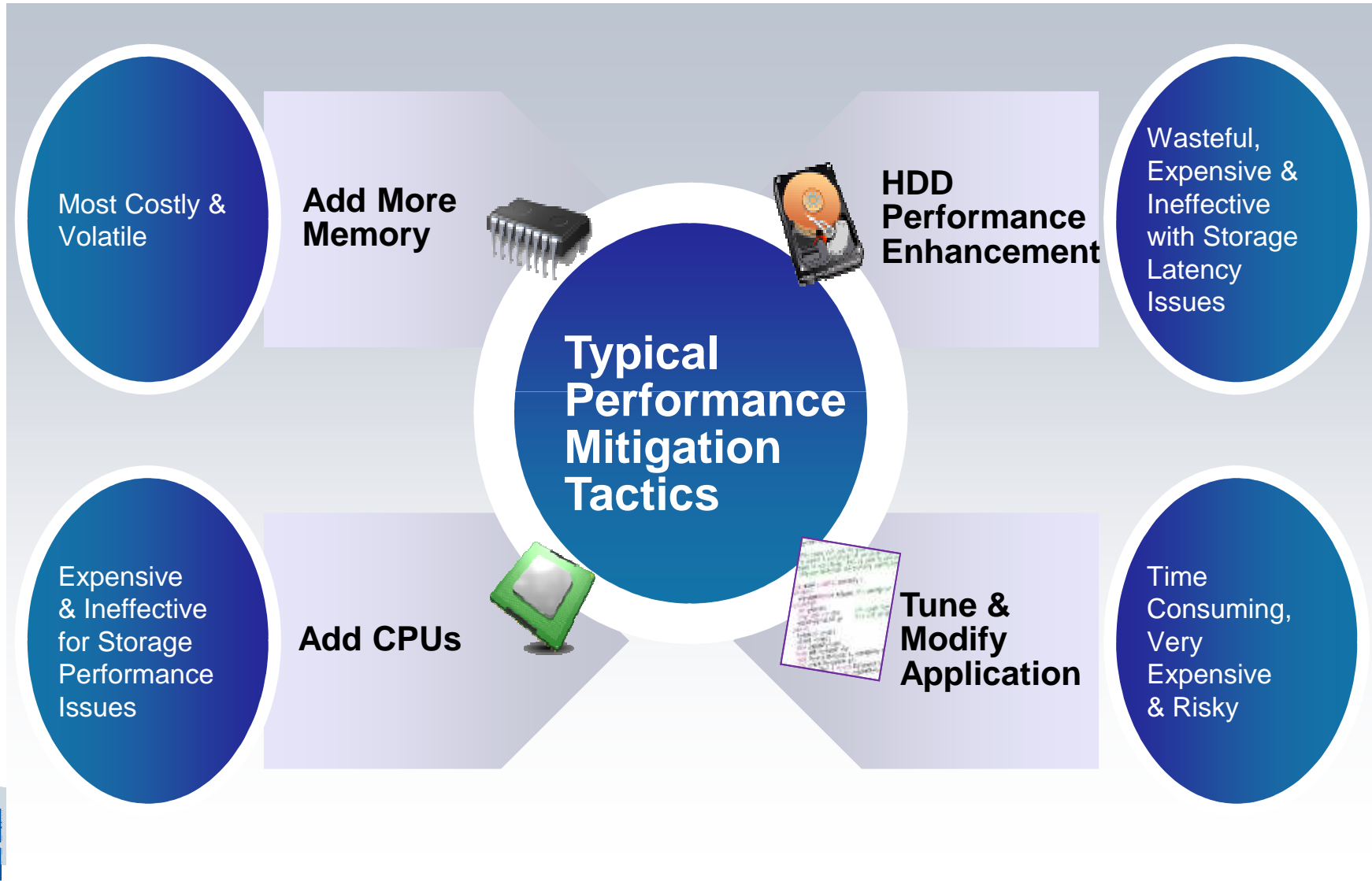
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Seize the Moment

9 Juni 2015

IBM FlashSystem





Introducing the solution, the FlashSystem



How are FlashSystem and SSDs different?

SSD is Flash memory inside a disk enclosure, managed by SW and Disk controllers.
Most of today's arrays were designed for spinning disks, not Flash.



These factors add (+) latency!



- Array operating system and SW layers
- Out-of-path array controllers
- SAS disk controllers
- SAS/SATA protocols
- Shared data path/bus
- Data protection (RAID) outside SSD
- Tiering and variable performance

FlashSystem:

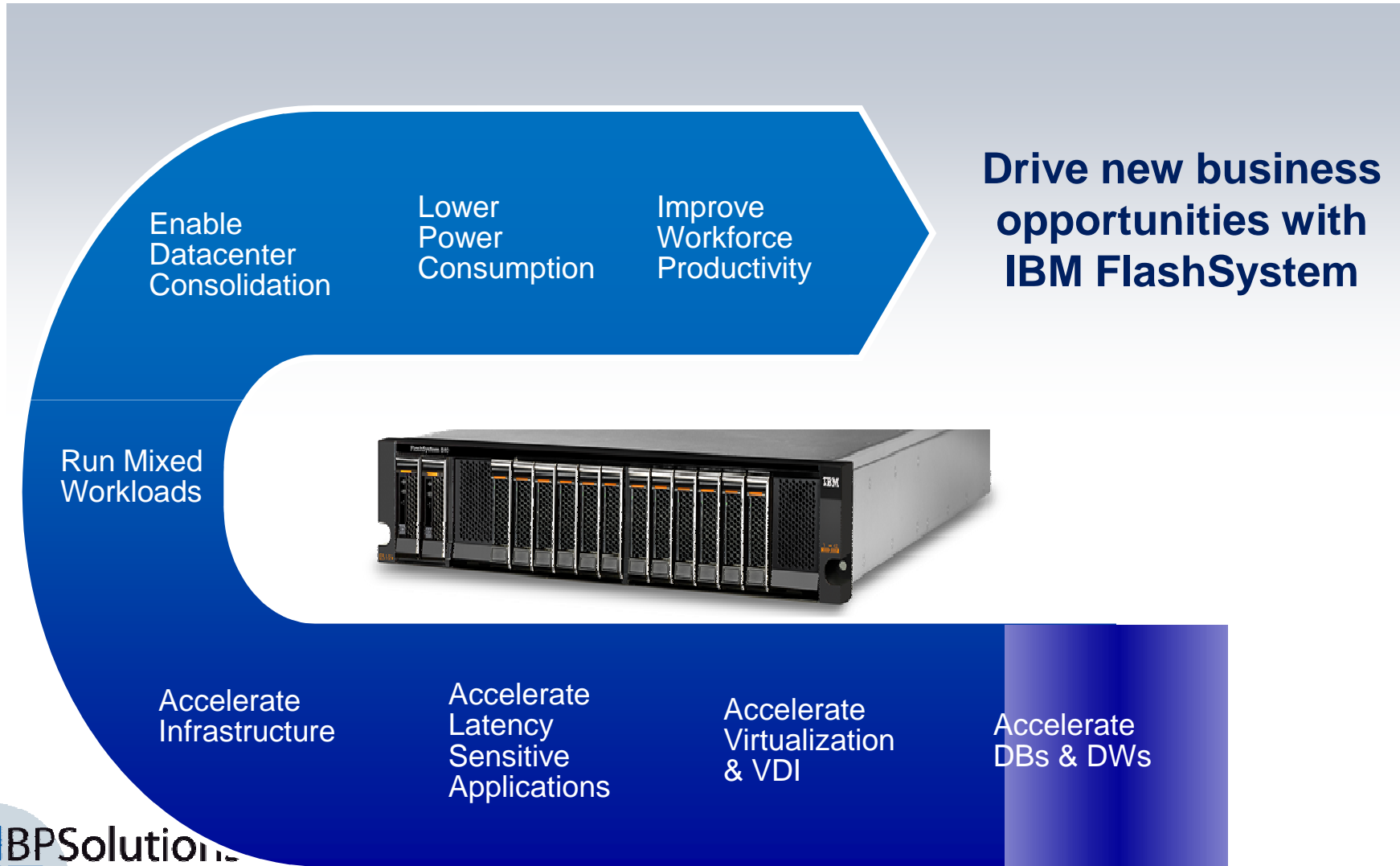


These factors reduce (-) latency!

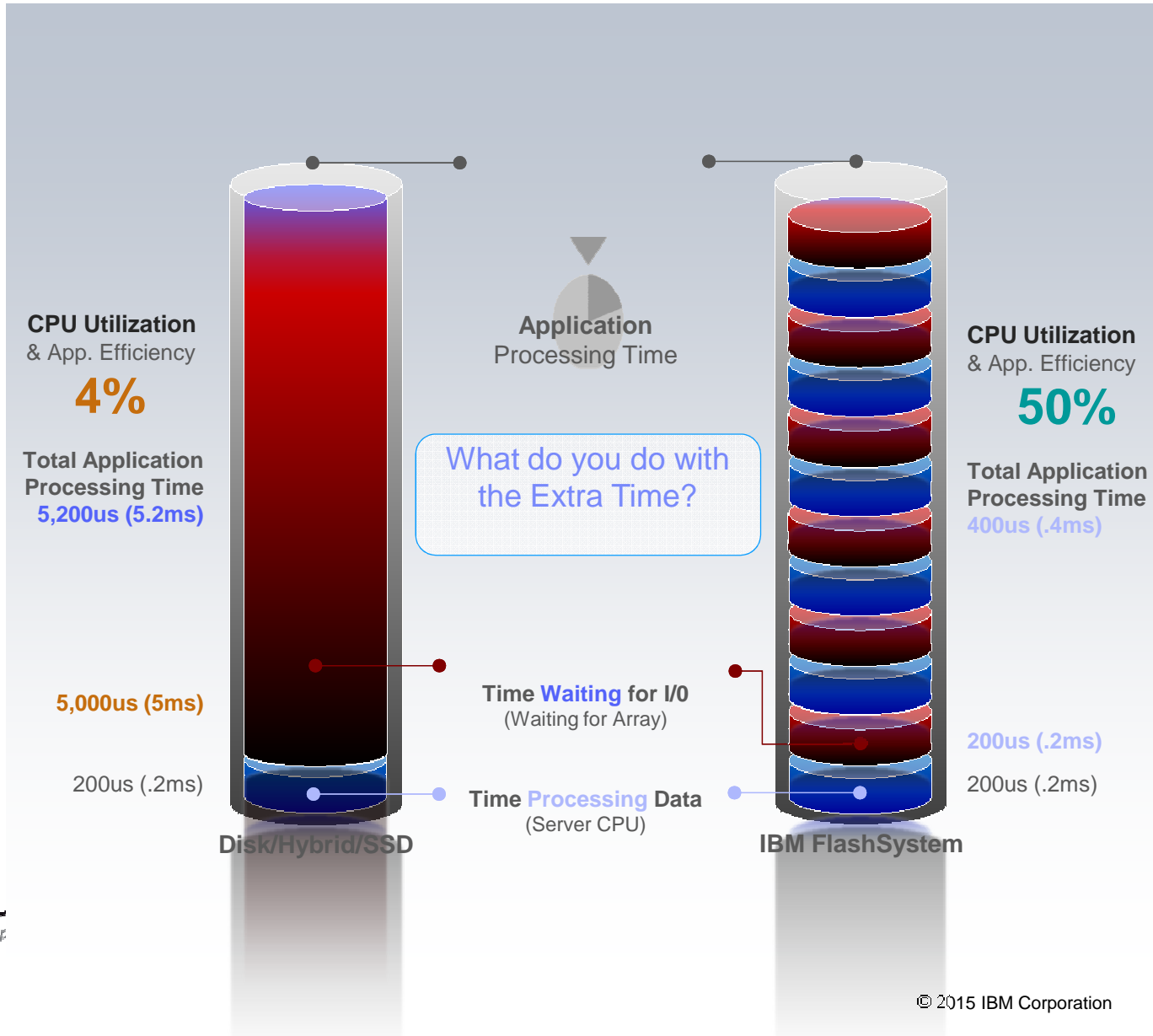
- No software layers, no operating system
- HW-optimized and designed for flash
- Massive internal parallelism (Bandwidth)
- Purpose-built (FPGA) – Microlatency
- Chip/Module level data protection - VSR



Why do this? Performance and Economics



Understanding Application Efficiency using FlashSystem



What have we achieved?

IBM Ranked **#1** for Flash Storage(SSA) Market Share, Worldwide based on revenue for 2013 and shipment data for 2014



Global market acceptance
#1 with 25% market share



Clear leadership position
*44% greater revenue than next closest competitor**



Shipped more capacity in 2014 than the two closest competitors combined**



**Calculations by IBM based on Gartner Report: Market Share Analysis: SSDs and Solid-State Arrays, Worldwide, 2013*
***Source: IDC, 2014*

Interconnect Services – Meeting customers’ need for speed with infrastructure services that never fail

Exceeds expectations

for consistently high performance, regardless of workload

Protects margins

due to low-admin, compact and efficient nature of the solution

Non-stop availability

of customer environments due to ultra-stable environment

Solution components

Hardware

- IBM® FlashSystem® 840
- IBM Storwize® V7000

Software

IBM System Storage® SAN Volume Controller



expanding your IT horizons



The transformation: Interconnect’s customers do not care what is behind the infrastructure services that they rely on, they just care that they work reliably and cost-effectively. Facing a rising demand for ultra-fast processing, Interconnect added flash storage to its offering, ensuring that customers can fully utilize their dedicated resources and boost performance.

“With the IBM FlashSystem, we are ready to support the next generation of ultra-fast business.”

—Jeroen Stevens, CTO and owner, Interconnect Services



Interconnect