IBM FlashSystem Cloud Performance and Capability Case Studies

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Agenda

- Cloud service models and how they can benefit from flash
  - IaaS
  - PaaS
  - SaaS
Premise: Every Cloud Needs Storage
But not all clouds are the same

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IaaS – Why speed and efficiency matter

Performance
SLAs

Unpredictable array of client use cases & workloads

Noisy neighbors impact performance

Customer retention

Switching costs are low

Deliver a great experience or lose customers

High capital and operating costs

High cost to deliver high performance

Managing complex infrastructure is costly

Data center space, power & cooling are costly
Why IaaS providers use flash

- **Reduce Costs**
  - Meet performance SLAs
  - Decrease software licensing costs
  - Lower cost for performance

- **Gain & Retain Customers**
  - Improve customer satisfaction
  - Easily handle mixed workloads
  - Scale performance and capacity
  - Eliminate noisy neighbor problems

- **Create new revenue sources**
  - Drive revenue expansion/upsell opportunities with performance offerings for critical applications
Nordic MSP gains efficiencies and performance with IBM

5x increase
in VMware density

300 percent
better response time

close to 100%
hardware investment financed by VMware license savings

Business challenge: A leading hosting provider in Sweden needed to create efficiencies in their IT infrastructure to protect and grow market presence amid significant competition.

The solution: Dual IBM FlashSystem 840 arrays virtualized by Storwize V5000 at two data center sites configured to Intel and VMware platforms.

Business impact: Substantial increase in performance and VMware density provided excellent ROI and better cost structure which protected market position.

Solution Components
- IBM FlashSystem 840
- IBM Storwize V5000 & V3700
- VMware
PaaS – Why speed matters

**Performance SLAs**
- Unpredictable client workloads
- Noisy neighbors impact performance

**Customer retention**
- Switching costs are low
- Deliver a great experience or lose customers

**Cost management**
- Often highly complexity applications
- Diagnosing performance issues is hard
- Data center space, power & cooling are costly
Why PaaS providers use flash: accelerate big clients

- Gain and retain clients
  - Scale as clients grow (count & size)
  - Improve customer satisfaction
  - Eliminate noisy neighbor problem
  - Support massive concurrency

- Reduce costs
  - Meet performance SLA’s
  - Decrease infrastructure costs
  - Easy to install and manage

- Create new revenue sources
Cegeka
Enabling lightning-fast performance to lead enterprises to the cloud

66 percent
reduction in SAP ERP application response times

97 percent
cut in potential footprint requirement

95 percent
decrease in power consumption

Solution Components
• SAP ERP
• IBM FlashSystem 820
• IBM SAN Volume Controller
• Oracle database
• VMware

Business challenge: To broaden its cloud-services client base, Cegeka targeted enterprises with demanding SLA requirements. Could it meet data performance and scalability needs without costs spiraling out of control?

The solution: Cegeka gained the capacity to support enterprise clients in the cloud, helping to meet corporate growth objectives, while continuing to attract and retain business from existing customers.

“IBM FlashSystem Enterprise Solution accelerates some SAP ERP processing jobs by up to 90 percent.”

- Luc Greefs, Director of Cloud Services, Cegeka
CloudAccess.net
IBM FlashSystem unthrottles performance for cloud platforms

Over 17,000
active Joomla sites hosted

Tens of 1000s
of users supported

2 hours
to configure and implement – quick time to value

Solution Components
• IBM FlashSystem
• Fibre Channel SAN
• Citrix XenServer
• Joomla! VPMC

Business challenge: Overwhelming demand as exclusive Joomla! demo site, pressure to keep costs low, original infrastructure not up to the task. The solution: The IBM FlashSystem was implemented quickly and easily and provides a bottleneck-free storage environment. It has exceeded the requirements CloudAccess.net had as the world’s premier hosting site for Joomla!

“...performance and ease-of-use has gone way beyond our expectations”
“When it comes down to flash technology, they really can’t be beaten.”
- Gary Brooks, CEO, CloudAccess.net

Flash Memory Summit 2015
Santa Clara, CA
SaaS – why performance matters

**Constant use**
- Highlights flaws
- Exacerbates perception of slowness

**Customer retention**
- Switching costs are low
- Deliver a great experience or lose customers

**Hard to ensure performance**
- Large user base
- More complex application stack
- Heavy, intricate front ends
- Complicated application delivery chain

Why SaaS providers use flash: slow customer churn

- Gain and retain customers
  - Improve customer satisfaction
  - Increase application stability
  - Handle more concurrent users

- Create new revenue sources
  - Drive revenue expansion/upsell opportunities with performance offerings for critical applications
  - Add data rich features without sacrificing performance

- Reduce costs
  - Lower cost for performance
  - Decrease infrastructure costs
SciQuest

Staying ahead of the competition with IBM FlashSystem

2x faster
response times

5x increase
in system load on the 1st day of install

14x reduction
in physical rackspace for significant cost savings

Solution Components
• IBM FlashSystem
• IBM System x
• IBM Storwize V7000
• IBM DB2

Business challenge: New challenges for optimal performance and availability amid growing user demand for cloud solutions, constraints around costs, energy, and rackspace.

The solution: Replaced a full rack of standard spinning disks with an IBM FlashSystem occupying only 3U of rackspace.

“With IBM FlashSystem . . . we’re able to focus on bringing new customers in. . . it’s a wonderful thing to show the performance.”

- Bill Kirchhoff, Production Infrastructure Manager, SciQuest