Flash Memory Summit

Faster, Smarter & More Affordable Storage for Hybrid, Multicloud World

Eric Herzog, IBM Storage CMO & Channels VP

Santa Clara, CA
August 2019

End Users love IBM Flash

RICOH
FlashSystem 900

seeweb
FlashSystem A9000, VersaStack

Fosen·ikt
FlashSystem 9100, Spectrum Virtualize

BI BEALLS INC
FlashSystem V9000, Storwize V7000, XIV, Spectrum Virtualize

Porrúa®
IBM Spectrum Protect, Storwize V5000

Ordnance Survey
Storwize V7000, Spectrum Virtualize, Spectrum Control, Easy Tier

The First MicroFinanceBank
اولین بانک قرضه های کوچک
'bank with a social mission'
Storwize V7000, TS3100, Spectrum Protect

CLOUD TEMPLE Innovative by design
FlashSystem 9110, IBM Spectrum Virtualize Software for V5000, Spectrum Protect Plus, IBM Storwize V5000 Gen1

Dashen Bank
Storwize V7000, Spectrum Storage Suite,

brf
FlashSystem A9000, DS8870

carhartt
FlashSystem 9100, Storwize V7000

UPMC LIFE CHANGING MEDICINE
FlashSystem A9000R & FlashSystem 900, SVC, Storage Suite,

itelligence
itelligence Denmark
Storwize V5030F

Mercedes-Benz STADIUM
Storwize V7000, Spectrum Protect, Spectrum Scale, Elastic Storage Server, Cloud Object Storage

COLGATE-PALMOLIVE
Pakistan Storwize V7000, Spectrum Control, Spectrum Virtualize

itelligence
itelligence Malaysia
FlashSystem A9000, Spectrum Accelerate

CTAC ENABLING YOUR AMBITION
Storwize V7000 & V5030, Spectrum Virtualize

fawry
FlashSystem A9000, Spectrum Scale, Spectrum Virtualize, Spectrum Protect, Spectrum Control, Storwize V7000,

CLOUD TEMPLE
Innovative by design

Protects clients' mission-critical applications and data in a multi-tenant private cloud

Business challenge

Cloud Temple wanted to protect its clients' virtual machines, improve customer service, and cut costs in a multi-tenant private cloud.

Transformation

The company deployed **IBM Spectrum Protect Plus** to manage the back up of approximately 7,500 Vmware virtual machines to **IBM FlashSystem 9100** and **IBM Storwize V5000** storage systems

Increased

Rates of compression and deduplication of data during the backup process, accelerating protection while cutting the rate of growth in storage capacity requirements.

Simplified

Management with a single flexible storage resource using IBM Spectrum Virtualize

Fast, reliable, scalable

" *With IBM solution, we are confident that our clients' critical systems and data are protected and be rapidly recovered. In addition, we now spend less time organizing backups and can concentrate on keeping our clients' outsourced systems in optimal working order.* "

— Christophe Lesur, General Manager Cloud Temple

carhartt

Drives international growth while saving $1.1million USD with IBM Power Systems and IBM Storage

Business challenge

Industrial workwear retailer Carhartt wanted to grow its international customer base.

Transformation

Carhartt upgraded their IBM Power Systems to consolidate its physical servers; and deployed **IBM FlashSystem 9100** and **IBM Storwize V7000** to reduce complexity and cut the IT management workload, as well as improve technical storage performance

https://www.ibm.com/case-studies/carhartt-systems-hardware-consolidation-power

$ 1.1 million

USD saved through improved performance and reduced upkeep

70%

Reduction in physical data center footprint

75%

Faster report times streamline business processes

" *At first, users thought the reports were not running correctly, as they couldn't believe how fast results were coming through!* "

— Michael Karasienski, Systems Architect, Carhartt

Fosen·ikt

Embracing flash storage to enhance data-driven municipal services

Business challenge

Fosen IKT delivers data-driven services to five municipalities in Norway. How could it continue to satisfy client demand for new services without harming the performance of existing applications?

Transformation

Fosen IKT deployed **IBM FlashSystem 9100** and **IBM Spectrum® Virtualize** to increase throughput and create headroom for continued application growth.

Up to 50%

shorter application response times, helping Fosen IKT meet stringent SLAs

29%

data compression, reducing storage requirements and enabling data growth

Cuts

power consumption, delivering operational cost-savings

" *Key workloads on our accounting platform—such as payroll, budgeting and financial reporting—are now up to 50 percent faster.* "

— Terje K. Nilsen, ICT Consultant, Fosen IKT

Middle-Eastern Government Agency

Improving citizen safety through large-scale open-source data analytics

Business challenge

To help ensure citizen safety, this Middle-Eastern government agency needed to analyze enormous volumes of data at speed.

Transformation

On behalf of the government agency, Circinus (Channel Partner) built a highly flexible, scalable and secure solution by selecting IBM LinuxONE with **IBM FlashSystem 9100** and **IBM Storwize V5030** to provide high-speed data storage

Acelerate

Ingestion and analysis of time-sensitive data to support intelligence work

Protects

Vital government services with high-availability architecture

100% Encryption

Helps ensure security for sensitive intelligence reports

" Its easy scalability and integration with other systems will be invaluable as we grow the solution to improve our services and meet future demands. "

— Andy Kowal, CTO,
Circinus (Channel Partner)

Large Bank in Nordics

"We were pleasantly surprised by the concentration of Computational power and storage density engineered *on the FS9100.*

With the Flash Core Modules on the FS9100 compared to our prior significant All-Flash investment on competitors products, we see an across-the-board reduction in latency*.*

Most batch processing has been reduced several factors *delivering critical positioning almost instantly. In addition the OLTP performance significantly outperforms even RDBMS branded appliance platforms.*

Furthermore, the compressibility of the data has no impact to the performance *of the solution resulting in both beneficial costs since compression is always implemented and performance is predictably low including data-at-rest encryption."*

IBM Storage Leadership and Flash Memory Summit Awards

Artificial Intelligence

2016 FMS
Cybersecurity demonstration, that included **IBM's FlashSystem 900** and **SparkCognition** cybersecurity software _utilizing IBM Watson AI,_ named the recipient for **"Most Innovative Flash Memory Business Application."**

IBM Watson

Unstructured Data

2017 FMS
NVMe over Fabrics demonstration that included **IBM's Spectrum Scale.** This solution can deliver **15 million IOPS at a latency of around seven microseconds.** named the recipient for **Most Innovative Flash Memory Business Application.**

IBM Spectrum Scale

Structured Data

2018 FMS
"Customers demand new levels of performance, data reduction and ROI from their storage investments," "**We are proud to recognize the IBM FlashSystem 9100, which delivers unmatched performance** with 100µs latency, 2.5M IOPS and 34GB/sec bandwidth and up to 5:1 data reduction through block-level deduplication, hardware-based compression technology, SCSI UNMAP support, pattern matching, and thin provisioning **for an impressive cost effective storage solution."**
Jay Kramer, Chairman of the Awards Program and President of Network Storage Advisors Inc.

IBM Spectrum Virtualize

http://www.conferenceconcepts.com/English/Conferences_Summits/Conferences_Summits.html

IBM Storage Portfolio Awards and Recognition

Check out the latest version at
http://ibm.biz/Storage_Awards

Gartner

IBM recognized in the below markets for our listed solutions:

IBM Cloud Object Storage
2019
Critical Capabilities for Object Storage
Highest Scores for Analytics, Archiving, Backup & Cloud Storage Use Cases
(January 2019) [1]

IBM Storwize, XIV, DS8000
2013 - 2018
A Leader:
Magic Quadrant for General-Purpose Disk Arrays
(November 2018) [1]

**IBM Spectrum Scale &
IBM Cloud Object Storage**
2016 - 2018
A Leader:
Magic Quadrant for Distributed File Systems and Object Storage (October 2018)[1]

IBM SSA Portfolio
2014 - 2018
A Leader:
Magic Quadrant for Solid State Arrays
(July 2018)[1]

CRN

IBM Spectrum Storage
2019
10 Software-Defined Storage Pioneers That Are Shaking Things Up

IBM FlashSystem 9100
2018
10 Coolest New Enterprise Storage SSDs and Flash Storage

IBM PartnerWorld
2018 - 2019
5 Star
Storage Vendor

**IBM Mid-Range Tape Drives &
IBM Tape Libraries**
2018
Market Leader

IBM FlashSystem 9100
2018
Finalist: Enterprise Storage

IBM Spectrum Storage
2018
Finalist: Software-Defined Storage

IDC

IBM Tape
2006 - 2018
#1 Branded Tape Revenue[2]

IBM Cloud Object Storage
2016 & 2018
A Leader in Object-Based Storage by IDC MarketScape[3]

Flash Memory Summit

IBM FlashSystem 9100
2018
Best of Show
Most Innovative Flash Memory Technology

Storage Awards - The Storries XVI

IBM
2019
Winner: Software Defined Storage Vendor of the Year

IBM
2019
Winner: Storage Hall of Fame Induction

IBM
2019
Runner Up: Storage Company of the Year

IBM
2019
Runner Up: Hyper-convergence Vendor of the Year

IBM
2019
Runner Up: Cloud Company of the Year

Eric Herzog, IBM
2019
Winner: Contribution to the Storage Industry

Storage Magazine Products of the Year 2018 Bronze

IBM Spectrum Protect Plus
2018
Product of the Year: Bronze Winner
Backup and Disaster Recovery Software and Services

Storage Magazine Products of the Year 2018 Finalist

IBM FlashSystem 9100
2018
Product of the Year Finalist:
Storage Arrays

IBM Cloud Object Storage
2018
Product of the Year Finalist:
Software-Defined and Cloud Storage