All Flash Arrays in Healthcare

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Data in Health Care

**Electronic Records**
- Strong incentives to go electronic
- Coordinate between multiple locations or offices
- Manage costs

**Virtual Desktops**
- Consistent experience
- Office, rounds, clinic, mobile, desktop, etc.
- Manage security
- Manage costs
“We have made a significant investment in Violin Memory’s All Flash Arrays and their new 7300 Flash Storage Platform based on our initial experience with them during our MEDITECH deployment. With fast, reliable product and great customer care Violin has helped us move in the direction of our HCIS goals – the fastest possible MEDITECH environment, Mobile and VDI implementations, and a robust hybrid cloud with significant DR/BC capabilities,” Carey said. “We are well positioned for the future.”

Eric Carey, Valley Health CIO, April 2015
400M patient scans in 60 seconds versus 1 hour

Challenges
• Patient record indexing and response times were too slow
• Infrastructure to maintain SLAs was becoming very expensive
• Impacting service levels to patients and NHS Foundation Trust staff

Solution
• Violin All Flash Array

Applications
• Oracle
• Microsoft SQL

Results
• Reduced scans to 60 seconds from from 1 hour
• Patients can be seen more quickly, consultants have more time to treat patients
• The Trust saves money, grows business

“Violin Memory’s flash arrays surpassed all the other vendors we evaluated. Disk-based storage just couldn’t achieve the indexing and response times required on this scale – and it was expensive. With Violin Memory, we’re now completing very large table scans, which used to take over an hour, in less than one minute.”

Scott Summerville, Group IT Director
McKesson Healthcare Applications

Challenges

• McKesson gained a contract with the UK National Health Service of a major analytics solution
• Necessity to manage large volume of datasets
• McKesson needed a high performance solution to manage their new Oracle Business Analytics platform

Solution

• Violin All Flash Array

Applications

• Oracle Business Analytics
• Oracle 11g R2

Results

• Reduced latency
• Reduced operational expenses
Flash helps Ramsay meet patient SLAs

Challenges
• Ramsay’s primary application, Cosmic provided by Cambio, is a PAS (Patient Administration System) database running on SQL.
• Cosmic has grown over the last 4 years from 700GB to >3TB, increasing IO load on their Oracle Pillar Axiom Disk storage platform and their virtualization platform.
• Data center space was limiting Ramsay’s option in considering disk to address performance and latency issues.

Solution
• Violin All Flash Arrays

Applications
• Cosmic SQL database (production)
• SQL Data Warehouse
• JD Edwards Oracle database
• Virtualized environment

Results
• Increased performance and reduced latency of applications means Ramsay can meet patient SLAs
• Can now complete crucial firmware updates to virtualization layer
• 3U form factor of Violin Array addressed performance/latency issues without disrupting their infrastructure and reduced operational costs (space/cooling/power)
3x improvement in virtual desktop boot times

Results
- Run time reduced to less than 1 hour versus 6 hours
- Faster access to patient data
- Reduce operational expenses: overall database licensing costs
- Reduce server room footprint through system consolidation
- Achieve critical milestones associated with “meaningful use” regulations for Medicare and Medicaid Services

Challenges
- Growth in patient community required an infrastructure that could accommodate and meet growing SLAs
- Scale VDI deployments
- Increase data access (storage performance)

Solution
- Violin All Flash Array

Applications
- McKesson healthcare application
- Microsoft SQL Server

“Our community is growing, and we needed to accommodate an increase in patients and staff. Violin’s flash memory array has allowed us to massively expand our virtual desktops and increase performance at the same time. It turned out to be less expensive and a better solution than adding more disk and hoping for the best.”

Mike Russell, Assistant Director
Conclusion: Disk is Dead

- All active data belongs on flash
- Violin benefits:
  - Switchable data reduction to manage costs
  - Full suite of enterprise data services for availability
  - Optimized flash platform for higher performance and resiliency
  - Professional Services for seamless path to all flash primary storage for health care
Thank You!

See IDC’s paper

Article on Healthcare in a Flash
http://healthcaretechoutlook.com/magazines/july15/healthcare/