



IBM Sales Success Story – Utility Company

Customer: Large utility company

Scenario: The customer had identified the need to upgrade and consolidate their storage environment. During this process, in discussion with IBM's hardware group, they highlighted their concerns about the array of backup devices, platforms and software in place. The environment comprised of:

Software:

- NetBackup (6.0MP4 & 6.5.3.1)
- CA ArcServe 12.5
- 4 x backup manager servers
- Software agents Auspex; Standard, Macintosh, SyBase, MS-SQL server

Hardware:

- RS6000, Windows
- TCP-IP transport
- 3 x tape libraries: IBM 3573-TL; IBM 3576-MTL; HP MSL6000
- Tape devices: ULT3580-TD3; ULT3580-TD4
- LTO Ultrium media environment

Clients:

- Windows, AIX

In addition the customer was comfortable with the proposed IBM specifications but were not 100% sure about the options they should choose and how Tivoli Storage Manager (TSM) would cope with their requirements.

Infrastructure Issues:

- Low success rate on SQL database backups
- Errors in Exchange backups reliability issues. Risk to compliance and integrity of data
- Data growth resulting in manual rerun of scheduled jobs
- Backup jobs overrunning during business day
- Backup server CPU overload causing I/O timeouts
- Complex management of data with intermix of tape media/drive types
- Legacy hardware and interconnectivity limiting performance
- Limited scalability of robotics that does not address the overall reported growth rate of data
- Multiple tape media recycling due to inadequate capacity planning, deleting compliance data
- Large amount of job crashes and hardware errors during ARCserve backup schedules
- Unreliable failover and disaster recovery strategy
- Host system performance and network throughput impacted by rerun of backup operations

Operational Issues:

- 78% Aggregate backup success rate
- Backup warnings from several SQL clients: unable to export database bdcdbpads1, bdcdbpsql3, bdcinpaix1
- Limited window of backup time resulting in incomplete scheduled backups
- Backup daemon stalling while processing AIX client socket files
- Mismatched tape drive microcode
- Using SCSI interface on tape drives limiting scalability and performance



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- Very low backup success rate on ARCserve protected systems
- Several failed attempts before successful Hyper-V daily backup, impacting performance and exceeding backup window
- Inconsistent versions of NetBackup management software build level
- No load balancing of backup data streams causing I/O bottlenecks

Proposal:

The IBM Tivoli Technical Professional (IBM TTP) who was involved with the IBM hardware team, recognised the problem the customer was facing and felt that an analysis of their situation using Butterfly's toolset would be able to clarify the correct Backup hardware and TSM configurations.

In December 2010 the IBM TTP ran the analysis collection using Butterfly's Analysis Engine. This identified the current configuration usage and gathered all metadata associated with the current environment. This process utilises an agent-less approach gathering metadata at the centralised storage and backup servers.

The resultant Analysis information was processed an Analysis Engine Report (AER). This is a single A0-sized report covering current environment, target environment/s and gives details of current wastage, highlighting de-duplication of information and processes. The AER consolidates this information into a single business overview that outlines a 36 month Return on Investment (ROI) and Total Cost of Ownership (TCO).

The AER was also used to help the customer by running alternative 'what-if' scenarios to illustrate the different operational benefits and savings that each proposed IBM configuration would provide.

In addition the AER highlighted how TSM could work with the new setup to provide current functionality and enhanced operation and benefits not available in the current configuration.

The page to view AER report enabled the customer to quickly assess their current operation and to be 100% confident that they were making the right decision on the IBM solution proposed. The customer was able to select the configuration that met their requirements and immediately see the benefits they would make from the migration and de-duplication of data and backup.

Installation:

The IBM team completed the sale as proposed for the following solution:

Software:

- IBM Tivoli Storage Manager:
 - Extended Edition
 - For Databases
 - Fastback

Hardware:

- IBM Tivoli Storage Manager management server
- IBM TS3310 Scalable Tape Library
- IBM Ultrium LT05 tape drives

Clients:

- Windows was chosen as OS for TSM Server

Benefits:

- Automated tiering of backups



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Advanced integration with structured data types
Unified strategic Backup & Recovery platform reduces operational overheads & reduces technical requirements

- Data Centre space savings
- Increased efficiency of backup and simplified process
- Improved Backup & Recovery throughput and performance:
 - Reduced network load
 - Reduced time requirements for B&R
- Capacity aligned with requirements and optimised for scalability and growth
- Improved performance and reduced impact on production systems
- Data centre and remote site consolidation:
 - Reduced cost and power requirements

Savings/ Overhead Reductions/ Expansion

The AER identified significant savings that could be made by upgrading the current legacy configuration to current technology, making the purchase decision by the customer a straightforward decision:

BUDGET \$ Savings:	
Infrastructure Savings	\$144,692 / 35%
Resource Savings	\$205,926 / 35%
TOTAL SAVINGS	\$350,617 / 35%
CAPACITY Savings:	
Total Capacity Reduced by	277 TB
36 month capacity reduced by	93TB
POWER Savings:	
KVA Saving	13 KVA
BACKUP Savings:	
Daily backup volume reduced by	10.5 TB
NETWORK Overhead Reduction:	
Network load reduced by	57%
FTE Reduction	34%
36 month growth rate applied	27%