

A Strategic Approach in Consolidation

Technical Whitepaper

September 2007

Author:

David S.Y Ng

B.E.(Elec)[Melb.], A.Mus.A, Master CNE,
NACE, VCP, VCS, IBM PSE, IBM CSE, IBM PSS,
MCSE (NT4/2k/2k3), CNE(NWS), CCNA, A+
Grad. Dip (Enterprise IT Security), Linux+

Principal Consultant

Netelligent Group Pty Ltd

www.netelligentgroup.com

TABLE OF CONTENTS

Executive Summary.....	3
Introduction	4
The Drivers	4
Strategic Consolidation	5
Consolidation Benefits	6
Process of Consolidation.....	6
Cost Savings with Consolidation	7
Conclusion.....	8
Further Information	8

EXECUTIVE SUMMARY

Given that any storage consolidation roadmap can delivery benefits, with a strategic view of consolidation looking beyond storage arrays can bring greater results through maximizing simplicity, agility and value.

Strategic consolidation begins with a thorough inventory of all storage assets coupled with in-depth understanding of particular business drivers, such as cost reduction, reduction in storage proliferation, streamlined management and efficiency. It is at this point that managers can define the desired outcome from the consolidation activity and build a relevant and practical business case. The common reaction of resistance to consolidation is expected, however through effective communications of the goals and expected results with a planned approach, benefits can be delivered promptly with IT overcoming such adversities.

Many organizations have turned to Netelligent Group ('Netelligent') for services and consultation with regards to their storage consolidation efforts and have achieved impressive results in terms of greater efficiency, cost savings and performance.

INTRODUCTION

IT Managers are fully aware of the issues inherent in business storage arrays, and as a result, would immediately question any new initiatives that set up separate systems for common functions or utilization of new tools for what is considered common operations. The inefficiencies and redundancies that result from a large storage array based business approach are widely recognized.

However, despite the above, organizations still inadvertently think in terms of 'silos' when it comes to storage, its management and consolidation. This thinking has its downturns, as it is equally counterproductive. Organizations may have separate Linux storage and Windows storage for example, which does not achieve cost savings when the time comes to consolidate this storage for greater efficiency and value.

A strategic approach is what is needed by organizations to realize and maximize the gains from storage consolidation and achieve its full benefits. A strategic approach guides IT Managers to think beyond disparate systems to consider the broader business implications and impact of their storage consolidation efforts.

This paper presents a strategic approach to storage consolidation that aims to achieve maximum simplicity, agility and value from consolidation efforts by changing the traditional storage mentality.

THE DRIVERS

As with other areas in IT, it is of no surprise that IT managers face similar pressures when it comes to storage.

- Consistent growth of data – Growth in business operations means growth in data respectively, and thus the amount of data to be stored is subsequently increased as well. This data has to be readily available and accessible to growing number of users whilst adequate protection is provided.
- Further storage requirements – Regulatory and corporate mandates represent one of a number of new storage requirements. Other requirements address new types of data, high availability, archiving and performance.
- Inefficient storage topologies – Direct Attached Storage (DAS) may be the most common infrastructure that most organizations inherently possess, and at the same time, is also

the most common inefficient storage topology nonetheless, clearly indicating the need for consolidation – but it is not the only type. Storage area network (SAN) islands; where it consists of multiple discrete SANs within an organization, presents yet another inefficient topology.

- Financial budget constraints – Most storage budgets within an organization are not commensurate with the demand for the storage capacity. Rather, many storage budgets are being reduced relative to the demands for storage services instead. The call for IT Managers to do more for less is very common.

These drivers are pushing IT Managers to consider storage consolidation, as it represents a proven method for addressing growth in data, growing list of storage requirements, inefficiencies of common storage topologies and the unavoidable pressures to cut costs in light of constraint budgets.

STRATEGIC CONSOLIDATION

Strategic consolidation is the step by step planned process of replacing older, less efficient storage with fewer more efficient, easily managed storage platforms. It is a proven methodology in light of the issues discussed previously, looking beyond the present conditions and device counts at a broader scope of possibilities.

Alternatively, organizations may focus consolidation on reducing the number of storage devices by substituting few larger arrays for many smaller storage arrays. This will achieve some measures of improved efficiency and savings but at times will miss other savings beyond the devices themselves.

However, through a carefully thought out strategy, organizations may be able to consolidate different applications, e.g. MS Exchange, Databases, Web Content etc, each with its associated storage on a large shared SAN. The efficiencies and savings are greater than what can be achieved within the application storage itself.

In the same accord, by thinking beyond the consolidation of devices to consolidation of management tools, organizations can further increase the benefits of consolidation. By consolidating storage management at the same time, not only a reduction in devices or arrays is achieved, but reduction in management tools and its associated licenses, deployment and training of administrators, cuts down the overall total cost of ownership (TCO) on infrastructure.

Over and above the cost savings of consolidation, organizations ultimately gain the efficiency and productivity as a result in managing the storage environment centrally. Strategic storage consolidation allows organizations to leverage the gains from various narrow consolidation efforts to maximize the overall benefits across the broader organization.

CONSOLIDATION BENEFITS

Netelligent takes a practical approach in strategic consolidation, to provide a value based proposition for organizations so that you are able to realize the considerable financial benefits as a result.

Organizations would benefit from the reduction in hardware maintenance costs, software licensing costs, and labor expenses as fewer administrators can manage more storage on fewer arrays. This forms a tangible savings strategy that hits the bottom line directly.

PROCESS OF CONSOLIDATION

It is vital that the process of consolidation be considered prior to engaging a strategic consolidation effort. The first logical step is to initiate a thorough analysis and inventory of your existing information, storage and infrastructure – you have to understand what you have and where you are at, before you can consider where you want to head and how to get to that point.

Subsequently, the business drivers underlying your consolidation effort is to be considered, as it assists you in identifying the areas to be consolidated. For some organizations, the drivers could be the sheer proliferation of hardware, whereas for others it may be related to increased complexity, time and labor that are required to make any storage changes. Through thoughtful consideration of business drivers, the right strategic consolidation option can be formed.

Finally, the key is to define the outcome that is expected from the consolidation efforts. This segment of analysis is crucial to ensuring and developing a central business case for the effort.

Organizations typically start consolidation efforts with one of the following three components; physical devices, application data and management tools.

- Physical devices – Servers, arrays, SANs, NAS and so forth.
- Application data – MS Exchange, Databases, GroupWise, Lotus Domino, Web content, file data, archive and compliance data, production applications and storage requirement of systems.

- Management tools – Hybrid of various management tools for different arrays and servers, each with different interface and various levels of learning curves.

Resistance is expected with initiatives of storage consolidation despite its benefits, and thus the key challenges are in many cases, more organizational rather than technical or operational. IT Managers will need to hold the scales to ensure harmony between competing priorities to establish a process for ‘going forward’ with strategic consolidation projects.

Through effective communication of goals and expected results of consolidation, resistance can be overcome. Consolidation in a series of planned stages ensure that not only does the methodology initiate but also allows for organizations to experience the benefits as each stage completes, thus diminishing resistance to subsequent stages of consolidation efforts.

COST SAVINGS WITH CONSOLIDATION

Storage consolidation cost savings is the result through reductions in the number of storage devices required to deliver the same storage capacity, reduction in licensing requirements, increased utilization of existing capacities, and allowing administrators to manage more storage through central management tool accessible from any network point.

CONCLUSION

Storage consolidation is undoubtedly a great methodology to adopt in every organization; however, overcoming traditional storage mentality and implementing strategic consolidation can be a challenge. Netelligent Group Pty Ltd ('Netelligent') has the necessary expertise and experience in Enterprise Storage (SAN/NAS), Virtualization and Disaster Recovery to ensure that your storage consolidation plans will be executed successfully. Netelligent's vendor independence approach is the key in combining 'best of breed' technologies with our professional services to ensure a dovetailed solution specifically tailored for your organization's requirements. By combining leading technology products with Netelligent professional services, we are able to ensure that your organization achieves simplicity in storage infrastructure; enhanced agility through performance improvements, efficiency with scalability, and most of all, increased business value through optimum asset utilization.

Netelligent's Passion, Precision, Punctuality, Proactive, Practical, Proficiency, Procurement and Preventative IT Services and Solutions is streamlined to provide enhanced Productivity and Profit for your organization. -- *Netelligent Group's 10/10P's Philosophy & Practice*

FURTHER INFORMATION

For more information about Netelligent Group solutions, please visit:

www.netelligentgroup.com