

August 2011

Data Migration

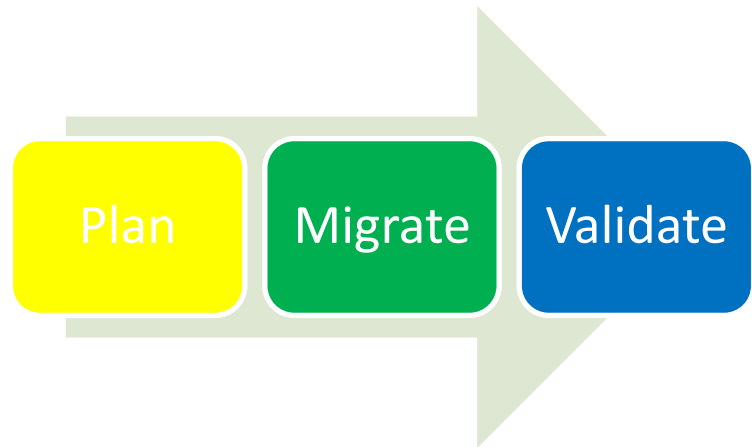
Basic Overview

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Introduction

Data Migration. A necessary event when storage, systems, or computers have become obsolete. Data migration is defined as the process of transferring data between storage types, formats, or computers. (Ltd., 2011) This process includes switching all I/O activity (IOPS) over to the new system. Each process has three steps: plan, migrate, and validate. In the past, data migration would take place in off-peak times like the weekend or nights. Since today we live in a world

where there is 24/7 data access, we cannot shut down servers or systems for an extended period to transfer data. Business cannot operate while systems or servers are down, adding more cost to migrating data. Software tools will help run both systems simultaneously while data transfers between systems. Problems may arise during data migration such as: extended or unexpected downtime, data corruption, missing data or data loss, application performance issues, and technical compatibility issues. (IBM, 2007) Making sure software and new hardware are compatible is of great importance. Ideally, the migration should go smoothly with minimal human interaction. The new, upgraded device should contain the exact same data as the old device. Using data verification tools and comparing the new system to the old, then cross verifying the data will also help this transition. Ultimately, if planned correctly and the best system is used; it will make the IT department less worried about losing data in the transfer.



Plan

Planning is the first step to starting a successful data migration process. Taking into account the old system, there is a need for software to help with the migration process. Also, the new hardware is of vast importance. Other important factors are:



- Number of Servers / Systems
- Speed of Transfer
- Amount of Data for Migration

You must consider all these factors, along with additional factors specific to your business or industry. Complexity of the plan may differ also; it might be the case that the switch is a simple one system to one system transfer. However, there are cases where the migration is over several systems which will increase the complexity of the plan rapidly.

Migrate

Picking a software package is a good step towards a reliable migration of data. Some options include: volume management products, host- or array-based relocation products, relocation utilities, or custom-developed scripts. (IBM, 2007) Before migration is even started, a pre-migration validity test should be run to verify the data. These tests are run so that the pre-migration data can be compared to the post-migration data. The actual migration should be the smoothest step, if the correct precautions are taken into account. Make sure migration software is used to speed up the migration process. Continually improving the window of time needed for the migration will also improve the IT department and company flow as a whole.

Validate

After the migration of data step is complete, the data must be validated so that the contents of the new system or drive perfectly match those of the old drive. The structure of the directory, file permissions, network access, and database applications need tested at a minimum. (NetApp, 2006) Without validation, one can never be sure that the drive is a perfect clone of the original drive nor ready for network access.



Conclusion

The three steps for data migration are plan, migrate, and then validate. First step is plan which includes figuring out the scope of your business and how you are going to take it to the next level. Several things need to be taken into account: the number of servers or systems, speed of transfer needed, and the complexity of new system. After all these factors are taken into account, your plan should be ready to put into action. This brings us to the next step, migration. This step includes moving all data from the original to the new server or system. When the first two steps are done, validation is the only step left. This step will insure that all data is correct and in order and that the new system or server has growth in operation and efficiency. This whitepaper should give you a simple understanding of what data migration is and how it will be achieved when you decide on a packaged system or solution.



Contact Us For More Information:

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