Good report about project management

Introduction

Data migration entails the procedures involved in the transfer of data between types of storage, format types as well as computer based systems as a major consideration in the implementation of systems, their upgrade or consolidation. Data migration is normally performed in a programmatic manner so as to attain automation in migration so as to free up human resources from taxing tasks (Sudipto. et al. 2010). Data migration may be undertaken for several reasons such as replacement of upgrade of server and storage equipment, consolidation of website platforms, maintaining of servers as well as relocation of data centers when the need arises. In order to attain an effective process of data migration stakeholders are required to map data on old systems to new systems through the provision of designs for extraction and loading of data. Such data should relate to old formats of data to the new formats of data and its associated requirements.

Background of Coca Cola's migration decision

Coca Cola seeks to move it's over 7000 employees from the Lotus Notes platform to the Business Productivity Online Suite hosted by Microsoft as revealed in a recent technology conference. The new platform migration will witness employee's receiving email accounts with 5GB storage capacity which is a substantial upgrade from the previous 300MB capacity as well as the consideration of the 69 Lotus Notes servers and 700 Black berry devices that are currently in existence in addition to new acquisitions which the company anticipates. It should be noted that the company has undergone

numerous computing platform migration for instance the previous migration from the Exchange platform.

Benefits of Coca Cola's migration

Coca Cola presently comprises of nearly 4200 employees which is approximately 600GBof storage as well as over 4 million in email messaging and calendar based entries in relation to the present state of the project. The migration will also involve bringing in the email history of its employees from the Lotus Notes platform to storage on Cloud based technologies which presents a dynamic shift in the entire operation of the company. Even though the company is shifting to Outlook there has been a loss in the integration of the calendar technology.

Challenges in the platform migration of Coca Cola

Previously a master list was used in generating employee rosters as well as easing employee tracking, location deployment as well as the number of Blackberry devices in the field. In addition the project managers made a call for a directory based on quality with the effort being made to upload Lotus data as well as undertake reconciliation in the varied sources as it was observed that there were a considerable number of dead employee accounts in the process of migration. Basic information existed in the staff directory with the challenge being chasing down these details as well as correct data entry which required a substantial effort in the reconciliation of user accounts with accounts located in the directory to as to obtain correct data.

Coping with challenges and shortcoming in Coca Cola's platform migration

Some of the challenges experienced in the migration to the cloud platform included discrepancies with some to place all the data in the cloud at the desired transfer rate. The aspect of DNS was not factored as a result of existence of session counts on the firewall with 4000 limit which later caused service limitation as the peak level had been reached which created a call for additional work on the Telstra technology for added capacity. Furthermore, another challenge that was experienced was the obstacles met in deployment of software with the user platforms being varied which created more work thus creating a workload burden. Coca Cola met these challenges by increasing the pace of adapting to the new platform with over 170 IT employees being involved in software testing with added instruction and tutoring from service and platform vendors. The rate of migration was quickened with senior management being the first department to be migrated to placate other staff with the completion of the migration process. A communication server was installed to provide facilitation of video calls. In addition service help desks representatives were deployed to provide assistance to users with any challenge they met in addition to the development and deployment of intranet based on Sharepoint technology with formulation of considerable user assistance content with the inclusion of a FAQ and bulletin board to update employees with changes in the company preceding to the finalization and rollout.

Procedures involved in the migration process

Data in a programmatic migration format can involve several phases with minimal inclusion of data extraction were reading of data from old systems as well as loading of data as it is written to new systems (Nadkarni, 2007). Decisions made for the provision of established file input specifications for data loading into targeted systems allows for the pre-loading of data as well as validation with the interruption of the standard E(T)L process. Migration can take several forms as data is stored on varied forms of media files and databases followed by generation and consumption by software application that in turn provide support for processes of business. Transfer and conversion needs of data can be driven by the several requirements of the business as well as the approach taken is dependent on the requirements of the migration with the four major categorizations being the provision of this basis. As such storage migration can be undertaken upon the decision of a business to rationalize their physical media to cease the advantage of increase efficiency in their storage technologies.

This will lead to the outcome of movement of physical data blocks from one storage media to another while often applying techniques of virtualization. The formatting of data and related content itself is not normally changed in the procedure and as such tends to be attained with low or no impact to above layers. Database migration on the other hand with similarity can be vital in the movement from one database vendor to another as well as version upgrade of software in use with the latter scenario less likely to need physical migration of the data but only restricted to major upgrades. In such situations physical transformation procedures can be required as data that is

underlying with significant changes as it may have an effect or not in regards to the behavior of applications (Shepherd, 2004). This dependant in a large way if manipulation language of data has been changed although modern applications are written in an agnostic format for database technologies such that changes to the various database vendors require a cycle of testing so as to be confident in the functional and non-functional performance if it has not had any adverse impact.

Migration of data on file servers should be undertaken with a plan for consolidation of the file servers or replacement of those that are outdated with new servers as well as migration of applications in existence as well as related data to new servers (Bradely, 2007). So as to ensure success in the migration process there needs to be creation of a detailed and well tested plan for migration that should entail the following aspects. There should be minimization of the measure of time in which data is not availed to the user. Reducing the impact of bandwidth on the network while lowering the migration costs as well as ensuring that there is no loss of data during the process of migration.

Identification of Data for Migration

Considerably large organizations do not tend to have the time to put off production before undertaking migration instead there is a typical movement of data in a gradual order with migration taking varied data classes in stages (Sudipto. et al. 2010). The plan for migration needs to identify data that is to be moved and the order in which it should be moves with file server data normally classified in the categories of business critical, application, personal, departmental data as well as other types of data for instance

specialized projects or data in a temporary format. In the creation of a plan for migration it is important for the determination of whether to consolidate varied data classes in varied rates upon varied hardware on servers with variation in service level agreements or in varied locations (Bradely, 2007). For instance to reduced the impact of any challenges in the process of migration the company can decide to move data that is non essential to start with followed by data that is critical to the business. In addition to identification of data to be moved the company can also identify that that is not to be moved for instance data that is in duplicate and obsolete form as well as data that has no relation to the operations of the business. Elimination of such files from the plan of migration reduces the file number needed for the migration while increasing the duration of time availed for storage on targeted servers after migration.

Risks associated with Coca-Cola' s project of system migration

The next step entails the identification of risks associated with migration in form of a procedural assessment as the best approach for identification of such risks is the establishment of spacing for testing with client and server systems which bears similarity with an environment of production as well as the undertaking of trial migration test runs. In addition to these trials in anticipation for the actual method of migration all client applications should be tested so as to ascertain the impact of migration to these applications. For instance, applications that are dependent on stored components in a specific file server cannot work correctly when the file server share name has been renamed after the completion of the migration process. In any

problems are identified the migration plan should be updated so as to prevent or provide mitigation of these challenges (Lin, 2008).

Some of the risks associated with system and data migration is without a thorough perception of the rules of business and related logic that pertains to information storage within target and source systems then the entire project of migration faces major risks.

Even after gaining an understanding of the regulations in system perspective it is also important to attempt to manage how the company utilizes such information (Nadkarni, 2007). In certain scenarios even after a good mapping examination there is the possibility of gaps arising as a result of issues related to data where in such a case the need for added cycles is apparent so as to re-map and re-run extraction, transformation and loading of routines.

There should not be underestimation of the effort required in the cleansing of data as in certain situations risk mitigation comes in comprising of measures that involve abandoning of the source system as well as the inclusion of added logic.

Steps to be undertaken in delivery of the Coca Cola's project of migration

In presenting the project of data migration several steps have to be undertaken to make the project presentable for approval such as exploration of the source system with the initial phase of the migration plan dealing with the identification and exploration of the source data with selection the route that is the most appropriate for data grouping on the basis of the targeted model (Sudipto. et al. 2010). This aspect is vital in the identification of data

required, its location as well as redundancy measures as well as components that do not require migration.

Data should be consolidate from varied sources so as to create a record system with correct datasets in fulfillment of the targeted requirements as multiple sources of data allow for the addition of other elements of data validation as well as boosting the levels of confidence of the data. At the end of this phase the project manager will have identified any shortcomings of the data as well as making possible inclusions of extra sourcing for compensation.

In order to achieve optimization the project needs to be broken down into segments that can provide management of work with the possibility of engagement in parallel tasks with this phase entailing the logical assessment of the quality of the source data if failure of the new system occurs due to inconsistencies in data or incorrect as well as duplication of data (Bradely, 2007). This is all related to the targeted system and as such there is need to undertake assessment of the data with recommendation of data profiling to make the project more acceptable and well researched.

Profiling is a major aspect as it provides the function of examination of actual value records as well as information in a metadata format as congestion of initiatives of data migration begins with initial examination of the levels of quality of source data. The inclusion of the aspect of profiling of data in the process of migration the risks associated with the project overrun with the potential for risk and complete failure being reduced. In addition profiling provides for immediate identification of the fitness of data in relation to the objectives of the business as well as accuracy in planning the strategy of

integration through identification of anomalies in data that are fronted. There should also be successful integration of source data to be utilized in automation data quality procedures as this stage entails the clear understanding of the quality of the data in source systems, data issue identification as well as listing of the defined regulations to be formulated as well as their correction (Nadkarni, 2007). There will also be the need to identify and define the quality of data regulations and source mapping in a source-target model which will require the project manager to have a clear perception at an increased level in the integrated design procedures.

The design of the migration phase should define the technical structures and designs of procedures in migration as well as defining testing procedures and how they can be transitioned to systems of production. The project manager is also required to determine whether parallel run, zero downtime or decommissioning of old systems will be the approach chosen for the process of migration. At this point it is important to place the plans in form of documentation with the inclusion of timelines, technical information as well as any other concern or approval needs such that the entire project is documented (Shepherd, 2004).

Managing stakeholder interaction in the stages in Coca Cola's migration project

Design phase

In design of the migration project the design phase would comprise of classification and definition of the requirements as defined in the phase of analysis will placement of the definition on how the objectives of the migration process would be brought to realization. The design would include

the roles and responsibilities on an individual level concerning the employees of Coca Cola as well as on a departmental level with involvement of an external consultant. Data mapping elements would also be involved in the design phase from the source to the target as well as the inclusion of a plan for physical freezing of data structures during their placement in the migration process (Nadkarni, 2007). In addition tools to be utilized in the migration process such tools of data transformation with which the employees of Coca Cola should familiarize themselves with as well as the alternatives that will be availed to system users, tools for mapping of data, modeling tools such as CASE as well as simplified spreadsheets that will also be utilized by system users. All of these aspects will be involved in the design of the migration process to familiarize the system with the users.

Inception phase

The decision to migrate was incepted from the need to massively migrate over 8000 of its employees from the Lotus Notes system to the Business Productivity Online Suite hosted by Microsoft. Prior to the decision to migrate there was performance of a pre-migration impact assessment for the verification of costs and possible migration outcomes upon which later planning was undertaken (Bradely, 2007). This migration would provide the company's employees as system users with increased storage space for email accounts.

Scope agreement phase

The scope agreement for the migration project involved the vendors based on the stipulation of the service vendor agreements that required the

vendors to install the purchased systems before which a proof of concept session was arranged. This used the extraction of test of the new system upon which a proof of concept was undertaken for the delivery of a model that was working as well as conversion in a prototype format for verification of the actual version and if the procedure would not have any challenges. The technology platform vendors in the scope of the agreement were also required to perform the actual execution and migration process in addition to undertaking the testing and performance of the new systems as well as providing services of support and maintenance as well as training of the system users to familiarize them with system operation (Bradely, 2007).

Delivery phase

The delivery phase of the migration project would entail the physical freezing of data structures from the source to the target as well as interface and source processing in accordance with the requirements of Coca Cola such that the data is staged at the source location. The phase would also involve the processing of quality reports and errors in data to identify inconsistencies so as to fix any issues related to the quality of data such that they are dealt with in the staging area. Furthermore, there should be a preliminary reconciliation in the staging area so as to undertake investigation of the items that have been reconciled and resolved.

Review

Migration projects are rarely perceived as value addition technology activities but rather as a required need derived from the need for storage consolidation, strengthened technology control implementations, upgrading

or replacement of systems as well as merging and rationalization of existing technologies (Shepherd, 2004). This maintains the focus of the management as concerned stakeholders with regard to budgetary needs which remain as a particular challenge. As such it is paramount to present a solid business case that contains an outline of the benefits to the business in a migration process that is controlled and justification of traditional cost benefits. A well defined migration process requires the support of the business by combining all aspects of the challenge such as storage matters, tools and vendor support, internal and external human resource factors as well as needs and metrics for performance.

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