DAT 515 – Final Project: Enterprise Data Management Architecture and Implementation Plan

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Contents

Introduction

Third Star Financial Services (TSFS) requested a plan to assist and aid their customer base and staff. TSFS requires a revamp of their current databases and database management systems. Focusing on the current and building future business models, mission statements and redirecting marketing plans will help TSFS gain leverage in the marketplace.

Summary of Current Architecture

Third Star Financial Services (TSFS) fashioned themselves as an alternative banking organization. Between 1969 and 1996, it's been established from numerous money transfer services in the United States. TSFS now has over 5,000 locations in the U.S. and Canada with 10,000 international locations. Their online database was created in 2009 and it not connected the same systems all the agents use. Databases include multiple entries of the same transaction, mismatch data from customers and transactions and sales staff is assigned to addressing agent issues. The merged acquired IT staff are considered incompetent.

Evaluation of Current Technologies, Tools and Components

TSFS has a current database has varied technical platforms and different technologies. The current tools in service are Oracle and MS SQL, which are operating on either a UNIX/LINUS or Microsoft Windows system. For hardware TSFS is using HP or IBM computers and laptops. They possess a network with inadequate bandwidth which does not support a robust architecture it wants.

The components of standard enterprise data management that TSFS currently have is no common understanding of the need of data governance or why it is needed, a non-existent data integration of its many data systems and no mention of a data security system to protect its data. TSFS has a beginning of a master data management system with Oracle and MS SQL

but it is not use to its full compacity (DAMA International, April 2009). TSFS data warehouses produce a numerous of reports which are used for daily operations and not decision-making.

Operational Impact

TSFS has lost market share over companies that have better-decision and structural skills and has suffered a serious lost in market share. They dropped from a 24% in 2008 to an 18.1% in 2011. One of their high rated competitors has recruited a high number of their executives. TSFS has recently hired Chief Enterprise Architect, whose focus is to develop and implement an enterprise architecture of the company.

Conceptual and Logical Models

The conceptual model shows the relationships every TSFS customer has with the entities of their addresses and transactions, which are part of TSFS current databases (See Appendix A).

A logical model represents the organization of a data by standardizating the people, places and things (entities) and the rules and relationships between them using a standard language of symbolization (Techopedia n.d.) (See Appendix B).

Explanation of Components Necessity

In the conceptual model: the one-and-only customer can have many transactions with their multiple accounts, which in turn could have only one type of payment for each transaction. A customer will deal with one agent who can also access the customer's multiple accounts. Many different transacations can have more-than-one payment type. Same goes for the customers addresses. A TSFS customer can have several regional addresses but only one address will be put in the database with the customer's several other addresses.

For the logical model: the relationships between the entities remain. Attributes are added

to the entities to demonstrate the characteristics that are included in the entities. Customer has a unique ID number identifying them over any other customer. Date of birth and their phone numbers will be added to their profile in the database. Regions included a unique country code followed by the characteristic of the state and address of the customer. One single address includes the street address as well. For the transactions, a unique number is given to each transaction followed by the attributes of transactions date, type and amount. The single transaction is a payment method, a unique payment code is assigned to the method of payment listed in the attributes below are the methods of payment a customer can wish to use.

Evaluation of Technologies and Tools

Some of the key benefits on using SAS Data Management or a Informatica PowerCenter are that that these tools can integrate various forms of database formats to serve as one "golden source" (DAMA International, April 2009). These MDM technologies include onboard tools to support with cleansing "dirty" data, organizing information, building reports and working with the data to solve present and future issues.

Disadvantages for using the above-mentioned technologies could be the use of funds and resources that would not be easily justified. MDM is an intangible element at the start of this project and it could be difficult to comprehend. Also, data silos could be inadvertently produced, where not all departments are able to capture data and the project might become its own enemy (Berson & Dubov, 2011).

DAMA-DMBOK Recommendations

According to the DAMA-DMBOK, master data management (MDM) is the business function of planning for, controlling and delivering data and information assets. By implementing the use of a MDM data governance tool TSFS would improve their outlook

business-wise and in its market. Data governance would be put into place to keep control over data management and use. Having a set data architecture in place before, during and after the plan implementation would be letting TSFS manage their data assets. Data security would improve with execution of this plan, there is no mention of its existence, providing privacy and confidentiality to the proper access. Adopting this EDM plan will accomplish TSFS data bases into one golden version of their database. Data quality will mature from -accepting an EDM tool to help cleanse, improve and maintain the integrity of the database (DAMA International, 2009).

Prediction of Improvement

If Third Star Financial Services assumes a better data management system, it will help in improving data quality and access. Therefore, better search results are obtained in a company with better and faster access to the organization's data, which can aid in decision making. TSFS will have effective data management which will minimizing possible errors and damages caused by them. If data is properly managed, updated and enhanced, then fast access is made possible, increasing worker efficiency. If data is inaccurate, not managed and has errors, then it can waste a lot of the organization's resources. By successfully managing data, this problem can be solved.

Security of TSFS data is very important and proper data management helps in ensuring that vital data is never lost and is protected inside the organization. Data security is an essential part of data management companies, one that protects members and companies from various data loss, thefts and breaches (Berson & Dubov, 2011).

TSFS stakeholder and customer data will be protected and more easily accessed. Which will equal peace of mind and reduced lag time to do business with TSFS. Helping improve TSFS' image in the marketplace.

Ethical Considerations

How should IT professionals, internal and hired-external, be monitored to ensure there is not any ethnical means being violated? Emails should be encrypted; IT professionals can still have access to all emails, data and web surfing through the TSFS network. Some ethical conflicts could arise, for example: Financial documents and data could be accessed and printed by an IT staffer that has recently quit or accepted a position with a TSFS competitor. On the flip side, if an IT staff member inadvertently reads data or an email from TSFS upper management about an unethical or criminal business transaction, does the staff member have a moral obligation to report such activity (Shinder, 2005)? Another dimension that should be considered is; what is unethical to one staff member could be ethical and "business as usual" to another.

Implementation Outline

The 7 steps that will be followed to implement this plan with suggested technologies will be the following; (1) TSFS will select a project team that will carry out this plan. Members of this team should include members of all levels of the staff; executives, IT personnel and agents. Second, we must describe the scope and size of our data issue. How much work needs to be done and where do we start? Next (3), a data steward team will be assigned. We will look for staff that has shown a healthy interest in data management and assign additional staff, if/when needed. Fourth, we must confirm and refute project expectations. What issues will be focused on improving and which areas will be brought to light that have been ignored? Next (5), policies and a rule set should have established how the data is handled. Data governance will serve as reference for decision-making and how this plan is completed. We must (6) enlist TSFS information technology (IT) work groups to aid in initializing operations of our MDM plan.

Lastly (7), on conclusion of project, an evaluation of results and process will be conducted, which in turn, will lead to the next steps to be taken (Berson & Dubov, 2011) (See Appendix C).

Financial and Ethical Standards

To protect private information from Third Star Financial Services, there should be a data security management plan in place. A team made up of data stewards, IT security administrators, audit team (internal and external) and the legal department of TSFS should write a data security policy which is based on TSFS needs. Customers and their account agents should be granted permission to their own financial information, as needed. Also, restrictions will be on what can be sent back to TSFS regarding adding/editing financial data from customers and agents.

Conclusion

Data has become a huge asset in today's business world. If TSFS doesn't understand the importance of data management, the organization is less likely to survive in this modern economy. Having an organized data hub and strong enterprise data management tools and programs will help TSFS get a handle on its own future. TSFS should invest in data management tools to keep one of their biggest and valuable resource effective. TSFS must realize that data is important, and it can be created, stored, maintained, used and destroyed (Berson & Dubov, 2011). If TSFS's data is managed and updated, this plan will give fast access to every employee, increasing productivity. Once again regaining its place in the banking market.

References

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Shinder, Deb. (2005, August 2). *Ethical issues for IT security professionals*. Retrieved from https://www.computerworld.com/article/2557944/security0/ethical-issues-for-it-security-professionals.html

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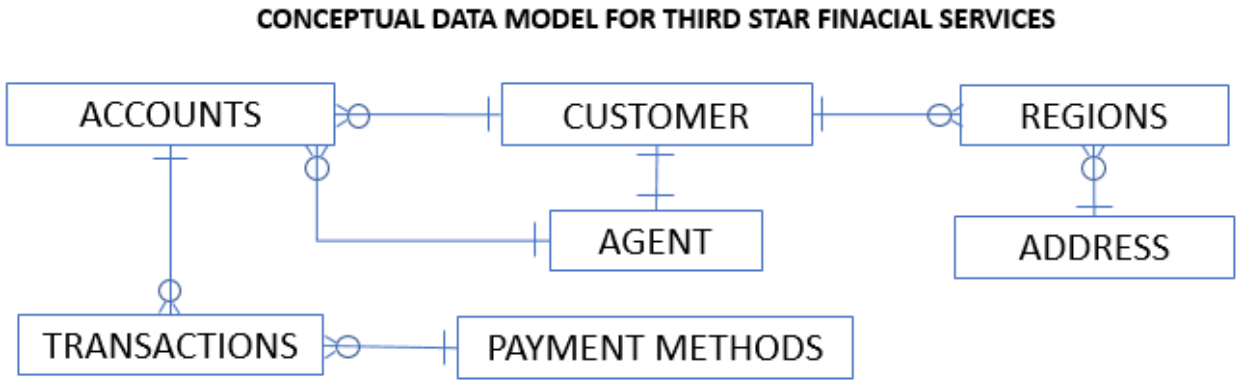
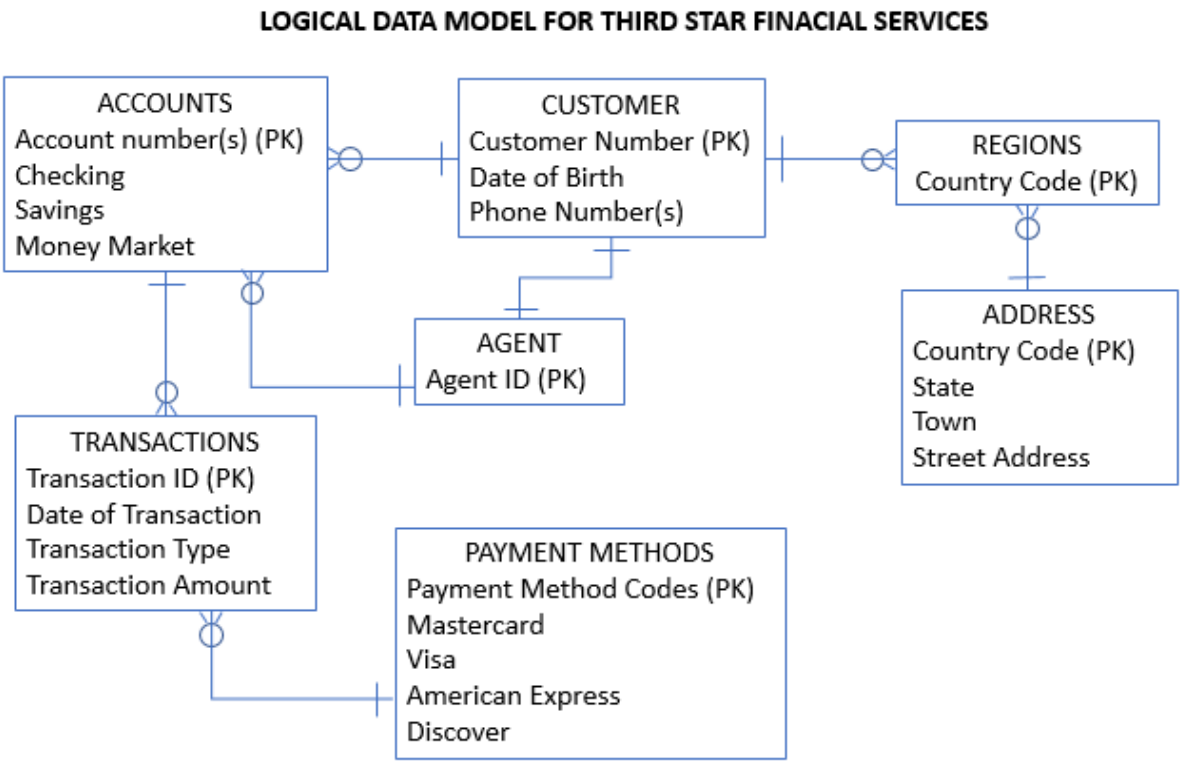
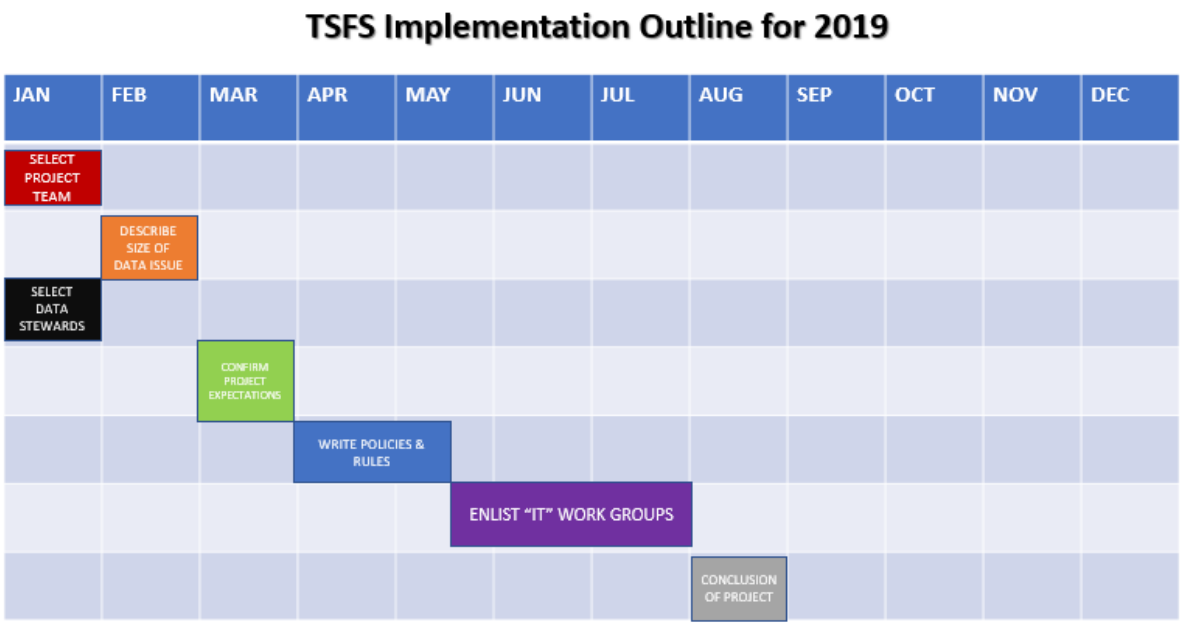
Appendix A


CONCEPTUAL DATA MODEL FOR THIRD STAR FINACIAL SERVICES
ACCOUNTS
CUSTOMER
REGIONS
AGENT
ADDRESS
TRANSACTIONS
PAYMENT METHODS

Appendix B


LOGICAL DATA MODEL FOR THIRD STAR FINACIAL SERVICES
ACCOUNTS
Account number(s) (PK)
Checking
Savings
Money Market
CUSTOMER
Customer Number (PK)
Date of Birth
Phone Number(s)
REGIONS
Country Code (PK)
ADDRESS
Country Code (PK)
State
Town
Street Address
AGENT
Agent ID (PK)
TRANSACTIONS
Transaction ID (PK)
Date of Transaction
Transaction Type
Transaction Amount
PAYMENT METHODS
Payment Method Codes (PK)
Mastercard
Visa
American Express
Discover

Appendix C


TSFS Implementation Outline for 2019
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
SELECT PROJECT TEAM
DESCRIBE SIZE OF DATA ISSUE
SELECT DATA STEWARDS
CONFIRM PROJECT EXPECTATIONS
WRITE POLICIES & RULES
ENLIST "IT" WORK GROUPS
CONCLUSION OF PROJECT