Migration Project for Oracle 11G to My SQL Server
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Abstract—Database migration is a process of moving the data from one platform to other platform based on its features for a better utilization of the data in an easier way. Migration project is basically moving the data and the structure from Oracle 11G to MSSQL Server 2014 by using Informatica mappings/workflows that apply changes to which are going to effect because of the above migration. The new mappings should point to the new SQL Server. The existing Oracle 11G database will be replaced by MSSQL Server 2014 database. The work involved is:

- Understanding the existing database objects like tables, functions, procedures, packages etc. and also create the same in the MSSQL 2014 database.
- Move the existing data from Oracle database to the MSSQL Server 2014 database.
- Test the data which is migrated successfully, if not make the necessary corrections to bring all the data in the required format.
- Migrate the existing mappings to point to the MSSQL Server 2014 database which are currently pointing to Oracle Database.
- Test all the mappings that are valid and working fine in the new environment, if not make the necessary corrections.
- Comparing the migrated records from the records that are generated by the final destination system and that the transferred or moved records are complete and are appropriate to the point.
- Summary Verification is a technique, but there are various other techniques that provide a complete summary about record count and checksums, the number of records that are migrated is compiled from the destination and then compared to the records that are migrated.
- Compare migrated records to the Sources (Sampling) where the tests should verify that fields and the values which are migrated as per the specification. In short, the values and the field level mappings all are used to calculate the required results at the final destination point.
- Table structure and Columns are matched between Oracle and SQL Server.
- Data Count Validation is done between Oracle and SQL Server.
- Data Comparison between Oracle and SQL Server is performed once the Data migration is finished.
- Functional Testing on migrated data is performed, once the comparison done.

Keywords: SQL, Oracle, Database.

I. INTRODUCTION
The project entitled as migration project is based on migrating the data or the database of the client from one particular platform to another in order to reduce the complexity, cost and use of the database effectively. The database is migrated based on its own procedures using the Informatica tool, where the data from oracle to MySQL server is being migrated. Transfer data from Oracle Dev to SQL Server Dev and then to SQL Server using Informatica and then the data is transferred using SQL Server Migration Assistant (SSMA). Firstly the Dimensional Data is transferred from Oracle to SQL Server, to avoid any referential integrity issues and then transfer the transactional data.

Direct one to one mapping of Oracle tables to SQL Server tables would be configured in Informatica, appropriate transform rules would be applied to the required columns, if required and thus, all data would be transferred from Oracle DB to SQL Server DB.

As the transform rules are defined by the developer, better data control throughout the data transfer process. Error Messages will help pinpoint to exact row of data which has issues, if any. It is the faster and safer way of data transfer between two heterogeneous Databases.

II. FEATURES
- More accurate screening of the details
- Overall lower costs by eliminating physical staff
- Streamlined check-in and check-out process
- Details of visit captured quickly and accurately
- Easy access.
- Less time consumption.
- More secure.

III. EXISTING SYSTEM
In the present scenario many of the organization are using system to keep track of records of the customers. The records contain the detailed information of the customer. The records or the data is increasing day by day, which becomes hard to maintain the database to the expected level.

Oracle does not provide sufficient features for easy access to the huge storage of database. The updating or retrieving of the data can get complex and be time consuming as the records will be many in number.

IV. PROPOSED SYSTEM
In order to maintain the huge database, we are making use of the MySQL Server and its features which is comparatively better than the Oracle features to maintain the simplicity and the ease of access to the database. It is cost efficient and supports the Microsoft tools in the system to generate or retrieve of the data easily. Functions or operations can be executed easily with very less time consumption.

V. SCOPE AND OBJECTIVE
The migration project is based on migrating databases and application from oracle to MYSQL server. The main purpose is to reduce the cost, complexity and maintenance risk. The migration from oracle to MYSQL can be troublesome, time consuming, and at times expensive. However the Informatica tool makes it easy to migrate the
data from oracle to MYSQL server at most ease by its effective features.

This project explains the following approaches that are considered with data transformation:

- Transfer the data from the Oracle to the MYSQL Server using Informatica.
- Transfer data from the Oracle to MYSQL Server and then to the MYSQL Server using Informatica.
- Transfer data using MYSQL Server Migration Assistant (SSMA).

VI. ADVANTAGES
- Less time consumption
- Easy to access
- Low cost
- Easy to maintain
- Secure
- Flexible

VII. DISADVANTAGE
- Time consuming
- More complex
- High cost
- Not flexible

VIII. CONCLUSION
Migration to the MYSQL Server provides an incredible value, using SQL features from MYSQL Server on complex Oracle to MYSQL migration project increases the quality, saving time and cost. A proper planning, analysis and attention to detail are needed for each stage of a migration project.

Although complex database migration from Oracle to MYSQL Server that involves challenging task, proper approach and use of migration tools allow the migration at low cost and risk.

MYSQL Server features can provide a large amount of database to deal with the complexity in a simpler way.

IX. FUTURE ENHANCEMENTS
We can implement more graphical reporting option for more flexible reporting which is compatible to all the environments and much easy access of data.

REFERENCE
[1] www.google.com