|  |
| --- |
| INTERNATIONAL INSTITUTE OF INFORMation Technology Bangalore. |
| Bank Data-Warehouse Architecture for Basel III Capital Accord |
|  |
| VENKATESAN M MT2011169 |
| **Version 1.0** |
| **8/6/12** |

|  |
| --- |
| Basel III accord needs multiple reporting of data from different modules of the business to keep track of the necessary capital reserves. There is a need to align the data structures that drive risk and financial data. These are: Transactional data, Asset Data and Customer Data. Also new terms such as Liquidity coverage ratio , Leverage Ratio, Systemically Important Financial Institutions (SIFI), Capital Conservation Buffer, Counter cycle capital buffer, etc are been included In the Basel III accord. The data quality and usability of the data model must be ensured as this accord will lead to multiple data reporting across departments. Data Ware house model will enable us capture data and analyse from multiple reporting. This work will outline the components of the Banking Data Warehouse (BDW) for Basel III and how they assist financial institutions to address the data modeling and data consolidation issues relating to the Basel III Capital Accord. |

**Literature Survey**

The BDW comprises a proven, flexible and scalable data warehouse technical infrastructure to address the following business reporting and analysis needs:

* Profitability
* Relationship Marketing (CRM)
* Regulatory Compliance
* Risk
* Asset and Liability Management

The below diagram is the six tier standard architecture defined by IBM for Basel II architecture.



The various models used in the Banking Data Warehouse for Basel II are

**Banking Data Warehouse Model:**

The BDW Model provides a well architected set of data structures for both data consolidation and data reporting. Any data and business requirements of the financial institution can be customized into the BDW Risk data and disclosure requirements as defined in the Basel II documentation are now covered by BDW.

**Business Solution Templates**

The BDW contains the Business Solution Templates (BSTs), reflecting the most common types of query and analysis for specific business areas that most users need to perform. The BDW also supports other data requirements such as reporting, data mining and decision support. the BSTs can be used to accelerate discussions with business users to provide rapidly prototypes of specific sample reports.

**Application Solution Template**

The Application Solution Templates provide good initial scoping of what data is required to address the Basel II risk components. The ASTs assist a financial institution in their analysis as to what are the overall requirements of each risk component for their specific needs. Once this analysis is complete, the financial institution will then map these risk requirements back to the BDW Model and identify the data warehouse subset needed to drive their Basel II risk calculation needs.

**BDW Project Views**

The BDW Project Views are a series of business subject area views which span across all BDW components. The BDW Project Views give users of the BDW a very clear understanding of the data coverage required in the Business Solution Templates for specific business requirements or in the Application Solution Templates for specific data calculation input requirements.

The above four models are used to extract necessary data and do analysis over the six tier architecture defined by IBM for Basel II standards.

*(Please Refer weekly Progress report 05/08/12)*

**Report Apparatus**

The following are the people and their qualifications working in this project.

**Venkatesan.M** M.Tech Software Engineering,

International Institute of Information Technology Bangalore.