Informatica Mapping Design Document

1. Architecture and Overview
High-Level Architecture:
The architecture of the "m_BOUPDATE_FILE_LOAD" mapping data is designed in such a way that it operates as part of a larger data integration process. This process involves the extraction, transformation, and loading (ETL) of data from various sources into a unified and structured format. The high-level architecture of the mapping is designed to be robust and scalable, which allows for efficient and effective data integration.
Purpose of the Mapping:
The primary purpose of the "m_BOUPDATE_FILE_LOAD" mapping is to facilitate the loading of data files into the system. This mapping is crucial in the data integration process as it ensures that the data extracted from different sources is standardized and formatted correctly before being loaded into the target system. The mapping data helps in aligning different data types, formats, and structures, ensuring that the data is integrated correctly and is fit for purpose.
Key Components:
The key components of the "m_BOUPDATE_FILE_LOAD" mapping include:
1. Source Definition: This component defines the source of the data, including the type of data, its format, and its structure.
2. Target Definition: This component defines the target system where the data will be loaded after transformation. It includes details about the system's data types, formats, and structure.
3. Transformation Logic: This component contains the rules and logic for transforming the source data to match the target system's requirements. It is crucial for ensuring that the data integration process is accurate and efficient.
4. Mapping Designer: This is the tool used to create, modify and visualize the mapping. It allows the data integration specialist to define the data flow from the source to the target system, and to specify the transformation logic to be applied.
5. Workflow Manager: This component manages the execution of the mapping, including scheduling, monitoring, and error handling.
In conclusion, the "m_BOUPDATE_FILE_LOAD" mapping is a critical component in the data integration process. It serves to streamline the process of loading data into the system, ensuring that the data is handled correctly and efficiently. Its key components work together to provide a comprehensive and robust solution for data integration.
2. Source and Target Systems
Source Systems Overview:
The source system for this mapping is 'BOUPDATE_DMP'. This system is essentially a database management platform, where a variety of data is stored and managed. It could include different types of data, such as transactional data, historical data, and master data. The system ensures data consistency, integrity, and security, providing a reliable and robust platform for data storage and retrieval.
Target Systems Overview:
The target system for this mapping is 'EXP_BOUPDATE_FILE1'. This system is a data file or a database where the transformed and formatted data from the source system is loaded. The data in this system is specifically tailored for analysis and reporting, enabling the business to extract insights and make data-driven decisions.
Data Flow Direction:
The data flow direction in this mapping is from the source system 'BOUPDATE_DMP' to the target system 'EXP_BOUPDATE_FILE1'. The data stored in the source system is first extracted and then transformed to match the required format of the target system. Once the data is properly formatted, it is loaded into the target system. The entire process of extracting, transforming, and loading the data is often referred to as the ETL process. This data flow direction enables the movement of data from the operational environment to the analytical environment, facilitating data integration and business

intelligence.

3. Transformation Details

The transformations detailed in this document are crucial steps in the data integration pipeline. They describe various operations performed on the data as it moves from the source system to the target destination.

Starting with the first transformation, "SQ_BOUPDATE_DMP," which is a Source Qualifier transformation. This is a key transformation as it represents the data extraction process from the source system. The Source Qualifier transformation is designed to read data from databases in an optimized way, with built-in functionalities such as filtering rows and joining data. This transformation is critical to ensure that the correct data is extracted from the source system for further processing.

Next, we have two Expression transformations, "EXP_BOUPDATE_FILE" and "EXP_LKP." These transformations allow us to manipulate the data by applying various business rules or calculations. The Expression transformation is a powerful component that offers flexibility in defining how the data should be transformed. For instance, it can be used to perform calculations, concatenate strings, or convert data types. In this context, "EXP_BOUPDATE_FILE" might be used to prepare the data for output to a specific file format, while "EXP_LKP" could be used to perform lookup operations on the data.

The fourth transformation, "FIL_Valid," is a Filter transformation. This is another key transformation where specific criteria are set to selectively pass data through the pipeline. It is a critical operation in the data integration process, as it helps in data cleansing and ensuring that only relevant and valid data is passed for further processing or loaded into the target system.

Finally, we have the "LKPTRANS," a Lookup Procedure transformation. This transformation is used to look up data in a relational table, view, or synonym. It is critical in operations such as retrieving a related value from a table or ensuring referential integrity.

In summary, these transformations represent a sequence of data manipulation steps which include extraction from the source system, applying business rules or calculations, filtering data based on specific criteria, and performing lookup operations. Each transformation plays a critical role in the data integration process, ensuring that the data is accurately extracted, transformed, and loaded into the target system.