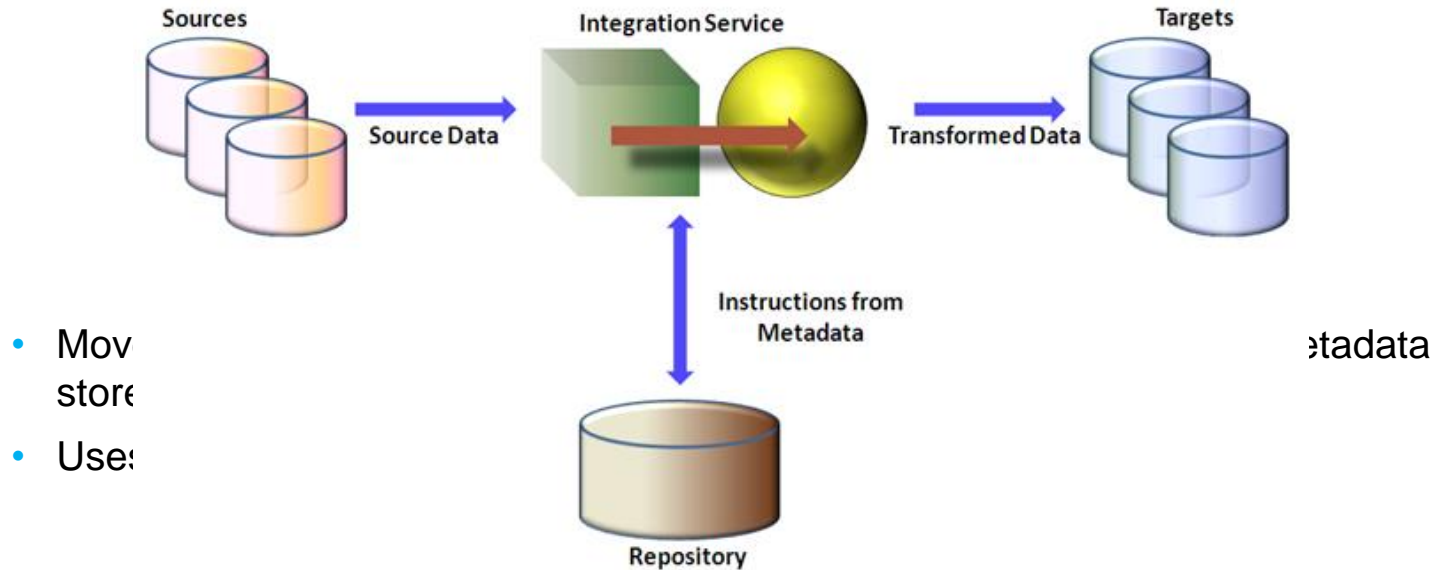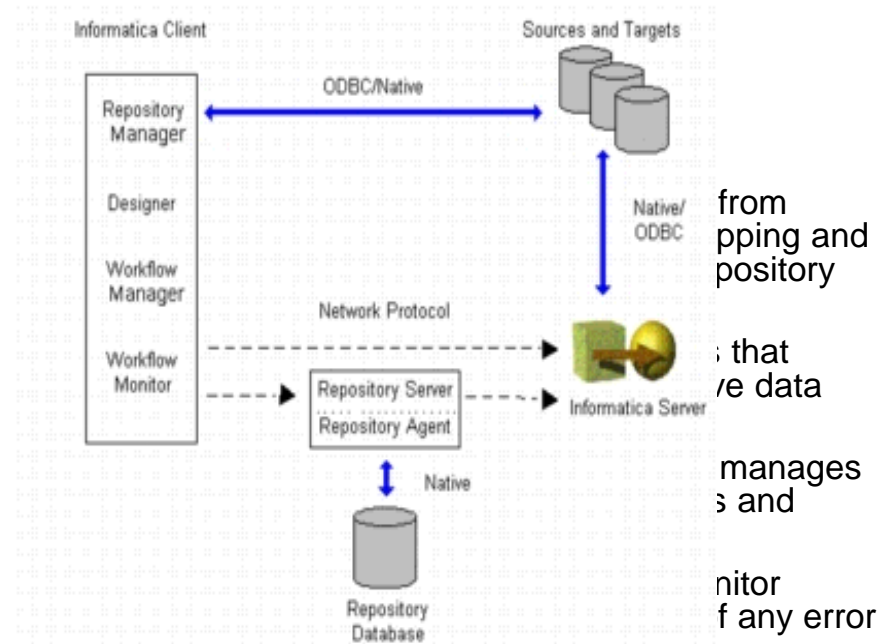# Integration Service & Data Movement

Objectives

At the end of this module, the learners will be able to:

- Outline Integration Service Overview

- State Integration Service Process

- Define Load Balancer

- Explain Data Transformation Manager (DTM) Process

- Demonstrate Integration Service and the Administration Console

PowerCenter Domain (Contd.).

- Mov ... etadata store ...
- Uses ...

Integration Service and Data Movement

Informatica Client

Repository Manager

Designer

Workflow Manager

Workflow Monitor

Repository Server

Repository Agent

ODBC/Native

Sources and Targets

Native/ODBC

Network Protocol

Informatica Server

Native

Repository Database

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Integration Service

- When a session starts, Integration Service retrieves mapping and session metadata from the repository database through Repository Service initiating a Repository Service Process

- Integration Service uses the following processes to run a session:

-

  - Integration Service process

  - The DTM process

  - Load Balancer

The Integration Service Process

- Integration Service process performs the following tasks:

    - Manages workflow scheduling

    - Locks and reads the workflow

    - Reads the parameter file

    - Creates the workflow log

    - Runs workflow tasks and evaluates the conditional links connecting tasks

    - Starts the DTM process or processes to run the session

    - Writes historical run information to the repository

    - Sends post-session email in the event of a DTM failure

The Integration Service Process (Contd.).

- Both Integration Service and repository uses Unicode

- Integration Service and Repository require compatible code pages to prevent loss of data

- It communicates with the repository in the following situations:
  - When you start the Integration Service
  - When you configure a session
  - When a session starts

Data Transformation Manager Process

- This is associated with a session run

- This process create and manage threads that carry out the session tasks

- The DTM allocates process memory for the session and divides it into buffers. This is also known as buffer memory

- It creates the main thread, which is called the master thread

- The master thread creates and manages all other threads

- If you partition a session, the DTM creates a set of threads for each partition to allow concurrent processing

- When the Integration Service writes messages to the session log, it includes the thread type and thread ID

Integration service

Activity :Quick Recap

- There are 3 components of integration service
    - Integration service process
        - Manages workflow scheduling
        - Locks and reads the workflow
        - Reads the parameter file
        - Runs workflow tasks and evaluates the conditional links connecting tasks
        - Starts the DTM process or processes to run the session
    - Load Balancer
        - Dispatches the Session, Command, and predefined Event-Wait tasks within the workflow
        - Matches task requirements with resource availability to identify the best node to run a task
    - DTM process
        - Retrieves and validates session information from the repository
        - Validates source and target code pages
        - Verifies connection object permissions
        - Creates and runs mapping, reader, writer and transformation threads to extract, transform, and load data

Summary

In this module, we learnt to:

- Outline Integration Service Overview

- State Integration Service Process

- Define Load Balancer

- Explain Data Transformation Manager (DTM) Process

- Demonstrate Integration Service and the Administration Console

Thank You