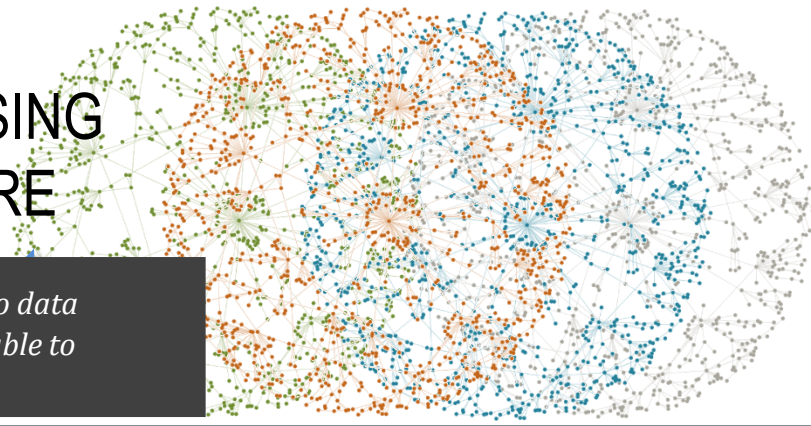


DATA INTEGRATION USING CHANGE DATA CAPTURE



An established and structured approach to data integration that makes change data available to systems and applications.

CLIENT

A major pharmaceutical company, involved in manufacturing, local distribution and export of various drugs. The company has several manufacturing facilities for manufacture of prescription and bulk drugs.

CHALLENGE

The company had a combination of home-grown (legacy) and off-the-shelf software for addressing requirements of functions such as production, purchasing, finance, import/export etc.

They had invested in an off-the-shelf planning software that would help them streamline their manufacturing and distribution operations. It was expected that the planning function would be done centrally and would need to source master and transaction

data from all peripheral systems.

The planning process could not be completed unless the peripheral systems fed the right data into the planning system. The output of the planning process needed to result in creation of orders in the production systems or even transfer orders in some cases. Also masters presented in various systems needed to be in sync with planning so that transactions could be processed successfully.

Other challenges included:

- No uniformity in interfaces provided by various applications
- Order of data synchronization is critical.
- Zero tolerance for data loss during synchronization
- Data needs to be synchronized near-real-time for accurate results
- Selective capture of changed data
- Data type and other transformations required between systems

SOLUTION

The proposed solution consisted of a middleware layer that enabled applications to track and propagate changes to other applications, and thereby achieve transaction level data integration. Changes made to the planning systems or legacy source systems were captured and delivered to target systems through the IBM InfoSphere Information Server.

The CDC component captured changed data and ensured minimal data flow between systems. The ESB provided a common platform for delivery of data to web-services enabled systems. Inbound transactions to the planning system were enabled through web-services while outbound transactions were captured using CDC.

TECHNOLOGY STACK

- ✓ IBM InfoSphere Information Server (DataStage 8.5)
- ✓ IBM InfoSphere Information Server (CDC 6.5)
- ✓ WebSphere Enterprise Service Bus 7.0

BENEFITS



Reliable Data



Faster Decision Making



Automated Process



Convenience



Real-time Integration



Higher Efficiency

FEATURES



- Real-time transaction-level integration between legacy systems and planning system
- Centralized monitoring and management of integration using Operations console
- Consistent error handling and management across integration touch-points
- Auto-recovery of failed transaction through auto-retry route
- Publish subscribe mechanism - making it easy to add/remove integration touch-points
- Interval based auto issue resolutions for technical failures

CONCLUSION

The approach was used to determine (and track) the data that had changed so that action could be taken using the changed data. Change data capture (CDC) is an approach to data integration that is based on the identification, capture and delivery of the changes made to enterprise data sources. By means of this solution, the client was able to achieve data synchronization on a real-time basis.

ABOUT US



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We help our customers get competitive edge through technology services that include Development & Integration, Business Intelligence & Analytics and Systems Software Management. Incorporated in India in 2002, we have a team of over 500. We also have a presence in Singapore, USA & UAE.

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