Trusted Data Delivery

Help reduce operational costs and risk while improving accessibility of critical business data

Highlights:

- Help reduce operational costs associated with data access and delivery and optimize resource utilization by leveraging the IBM InfoSphere Change Data Capture & Replication portfolio
- Help accelerate information delivery by reliably trickle-feeding data changes directly to extract, transform and load (ETL) processes
- Increase visibility into lines of business through the capture and delivery of data from diverse, heterogeneous sources across the enterprise
- Reduce dependencies on nightly batch windows to provide data delivery to active data warehouse and master data management implementations
- Eliminate IT redundancies and help cut maintenance costs by consolidating enterprise applications and simplifying migrations

From data warehousing to Service Oriented Architecture (SOA), application consolidation and master data management (MDM), enterprise leaders are well aware of the power of information to streamline processes, reduce costs and make businesses more efficient. To succeed, however, these projects must have steady and reliable delivery of timely business information from across the enterprise, which can be both expensive and resource-intensive.

Change data capture (CDC) technology helps businesses overcome this challenge by capturing only changed operational data and transmitting it across the enterprise, instead of capturing and transmitting all operational data. This provides substantial business value while helping to reduce risk. This technology drives cost efficiency and improved speed ; thereby enhancing traditional ETL processes.

The IBM® InfoSphere™Change Data Capture & Replication portfolio provides right-time delivery of changed operational data from a broad range of databases and platforms, helping organizations ensure that critical business information is available whenever and wherever needed with minimal performance impact on mission-critical business systems.

Reduce costs with CDC through application consolidation and migration

As businesses cope with economic uncertainty by cutting costs, CDC can enable and accelerate application consolidation projects by eliminating multiple application instances on different systems, databases and OS versions. This can reduce maintenance costs dramatically.

Consolidating and moving the data contained within those applications can be a sensitive task. If consolidation or migration projects require significant downtime, it could defeat the cost savings of the initiative. Also, consolidation is challenging, since most system environments comprise a variety of operating systems and databases.

With CDC, data can be migrated easily from one database or platform to another while end users are still using applications—resulting in no downtime, and therefore no productivity cost or to the business. CDC also supports a broad range of operating systems and databases to help maximize the value of investments for use in future projects.

Streamline integration processes and lower development costs with CDC and SOA

Reuse is a key theme for accelerating application development and reducing costs. Significant cost savings can be achieved by using CDC and SOA technologies to deploy commonly used business functions as services that can be shared across the enterprise. CDC provides a right-time flow of operational data changes through message queues and enterprise service buses (ESBs) to increase business visibility and data accessibility for consuming enterprise applications and services.

Minimize batch windows and improve visibility into lines of business with CDC and active data warehousing

Businesses can use CDC techniques to support traditional ETL systems that are challenged by the rapid growth of enterprise data volumes, which can cause batch windows to continually shrink. Batch windows are the traditional approach for updating data warehouses, but CDC can enhance that approach. For businesses with large volumes of daily changes that can't afford downtime, CDC offers even more visibility into the data warehouse.

CDC provides a noninvasive, reliable, low-impact approach for extracting changes from mission-critical systems and delivering this stream of incremental data changes to an ETL solution, such as IBM InfoSphere DataStage® (part of InfoSphere Information Server). This enables businesses to continuously update the data warehouse without requiring batch windows that involve transferring entire data sets, which have a much larger volume than that of just the changed data. CDC can supply active data warehouses with continuously captured data, enabling businesses to base their decisions and analyses on fresh, up-to-date information. Business leaders can act on opportunities or respond to issues as soon as they appear.

Lower CPU utilization while increasing visibility with CDC and operational business intelligence

Operational business intelligence (BI) systems can increase visibility into lines of business, but implementation must be handled carefully. Directly querying mission-critical systems for reporting purposes places a heavy burden on those systems and results in increased CPU utilization, which may hamper application performance. CDC increases availability of enterprise data for operational BI without negatively

impacting source systems. By replicating live production data to a secondary system (i.e., operational data store or enterprise data warehouse) for reporting and query requirements, CDC lowers costs and risk by avoiding impact to CPU utilization on mission-critical systems, which preserves.application performance without affecting end users.

Make confident business decisions using a single version of the truth with CDC and MDM

Nearly all information management projects face the challenge of efficiently delivering information from disparate sources to a centralized system, where it can be leveraged for business purposes. Without this capability, data remains siloed in discrete enterprise systems rather than consolidated into a knowledge base that can be used for initiatives that support business decisions and strategic analysis, such as MDM or data warehousing projects.

While batch-oriented ETL is an option for organizations that are consolidating data, the CDC solution is specifically architected to provide complementary benefits to ETL. By only querying and delivering data that has changed, CDC has minimal impact on mission-critical source systems. Providing right-time delivery of changes also enables users to work with the most current and up-to-date data for business initiatives.

Similarly, MDM systems are most effective when their data is updated in a timely manner in order for decisions to be based on the same information. Batch-oriented ETL, in-house development and CDC are three possible approaches for delivering and updating data in an MDM system. While batch-oriented ETL can be a viable option, in-house development of a right-time information delivery system can be expensive, risky and time-consuming, especially given the multiple database platforms that populate the IT infrastructures of most enterprises.

With the CDC approach, IBM InfoSphere's Change Data Capture and Replication portfolio efficiently delivers changed operational data in real time from information sources across the enterprise. Coupled with an MDM system, the portfolio enables businesses to create a single version of the truth in their desired timeframe, which significantly reduces the costs and delays of manually cross-checking and verifying data inconsistencies. With a single trusted source of information, organizations can make better decisions based on more consistent data, increasing the speed of business and enabling companies to be more agile and react quickly to profitable opportunities.

Provide continuous availability to minimize downtime costs and business interruptions

Disasters such as floods, earthquakes, oil spills, and volcanic erruptions not only have an environmental impact – they also have a significant economic impact to a business. The downtime costs for the inaccessibility of mission critical data and applications can range from contractual fines, lost productivity, and loss of credibility – all of which can contribute to a loss in customers. With CDC, data can be synchronized between two systems to provide continuous availability. Even if the primary system is impacted by either a planned or unplanned outage, a secondary system will still be available to serve customers and keep the business up and running.

Conclusion

When coupled with information management initiatives, CDC techniques can yield substantial business benefits. By making up-to-date information easily available across the enterprise without placing a heavy burden on existing data sources, CDC can give businesses a significant advantage over their competitors, particularly in this uncertain economy. Don't put your business in a catch-up position—be the one in the forefront with the CDC advantage.

For more information

To learn more about the IBM InfoSphere Change Data Capture and Replication portfolio, please contact your IBM sales representative or IBM Business Partner, or visit:

ibm.com/software/data/infosphere/solutions/data_replication.html

Additionally, IBM Global Financing can tailor financing solutions to your specific IT needs. For more information on great rates, flexible payment plans and loans and asset buyback and disposal, visit:

ibm.com/financing/us/index.html

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