Information Management

IBM

Maximize Cost Savings While Improving Visibility Into Lines of Business

Jason Sturgess
WW Manager - InfoSphere CDC

The Information Challenge

Business Challenges

Globalization

M&As

Supply Chain

Risk & Compliance

Customer Loyalty

Operational Costs

Business Velocity

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INFORMATION IS A STRATEGIC ASSET

Information Challenges

Accuracy

Timeliness

Relevance

Accessibility

Version control

Volume and Variety

Information Silos

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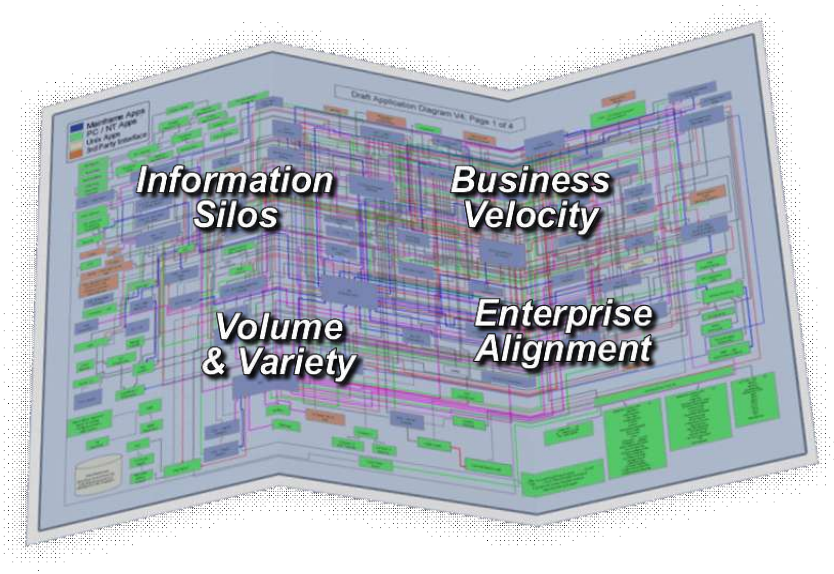
Sources: IBM Attributes & Capabilities Study, 2005; Client Interviews 2004; IBM CFO Study, 2006

Issues Facing Lines Of Business

Business User Pains

- **47%** of users don't have confidence in their information (1)
- **59%** say they missed information they should have used (1)
- **42%** of managers use wrong information at least once a week (1)



Customers are swimming in data but unable to get information

- Locked in proprietary systems
- Difficult to access
- High impact on operational system
- Too much data to move with ETL
- Extracts become "stale"
- Difficult to manage manual copies
- Hand coding is expensive and troublesome

(1) AIIM & Accenture Surveys, 2007; (2) TDWI 2008; (3) Palladium Study, 2006

What is Trusted Information?

Insightful

Derive meaning from information challenges

In Context

Real-time delivery of relevant information when and where it's needed

Complete

Related information reconciled into a single and holistic view

Accurate

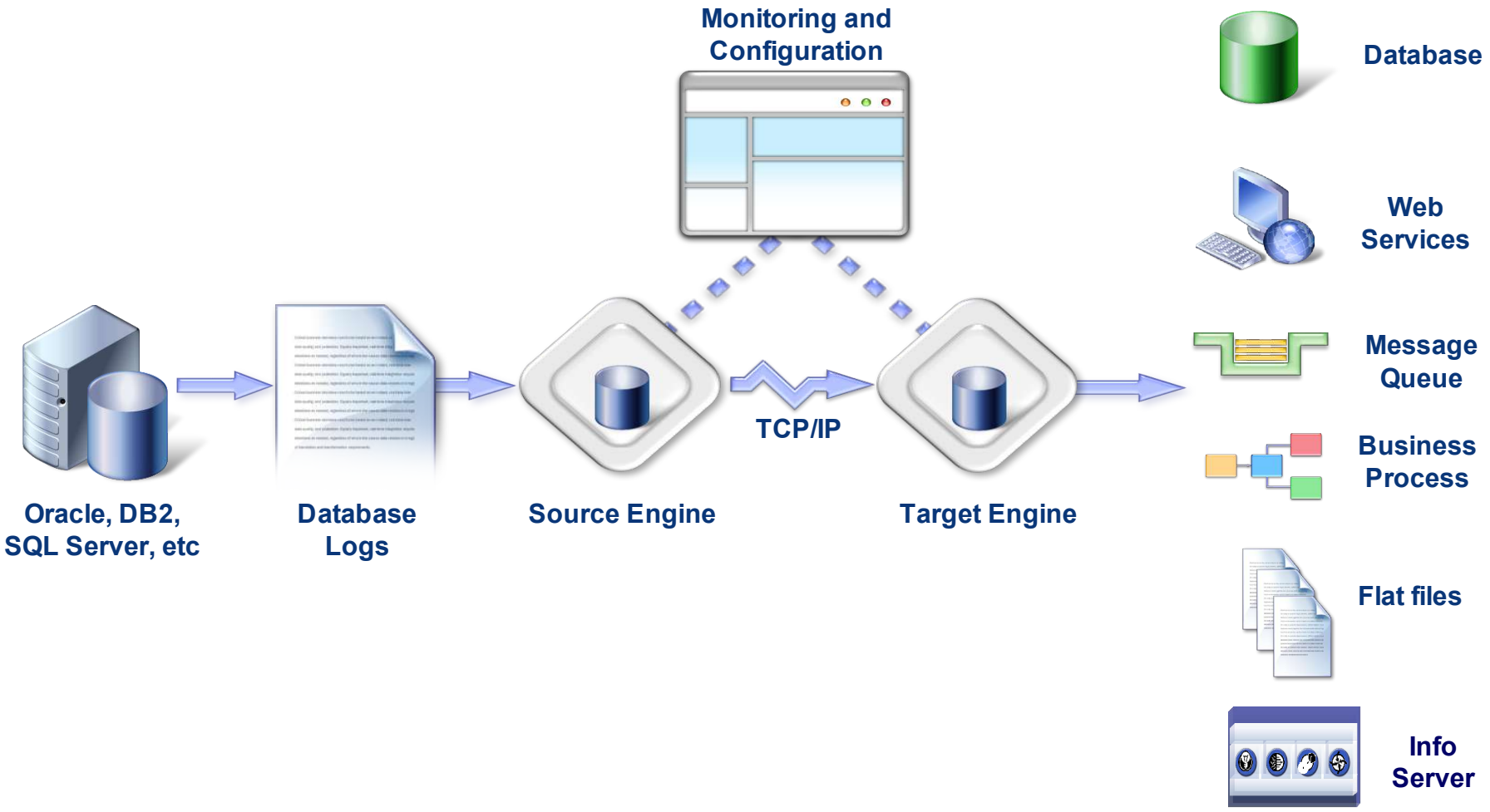
Complex and disparate data transformed, cleansed and delivered

Issues Facing IT And Integration Architecture Teams

- **Reducing Risk & Cost Of Data Access On Mission Critical Operational Systems.**
  - Minimizing or eliminating resource utilization and performance issues related to an existing data extraction process.
  - Optimizing and re-allocating system resources for use on higher priority workloads.
  - Extending business application availability to lines of business.
  - Managing growing nightly batch windows and capacity upgrade requirements and cost.

- **Improving Visibility Of Important Business Data To Lines Of Business.**
  - Event driven data delivery.
  - Near real time or intra-day Query and Live Reporting capabilities.

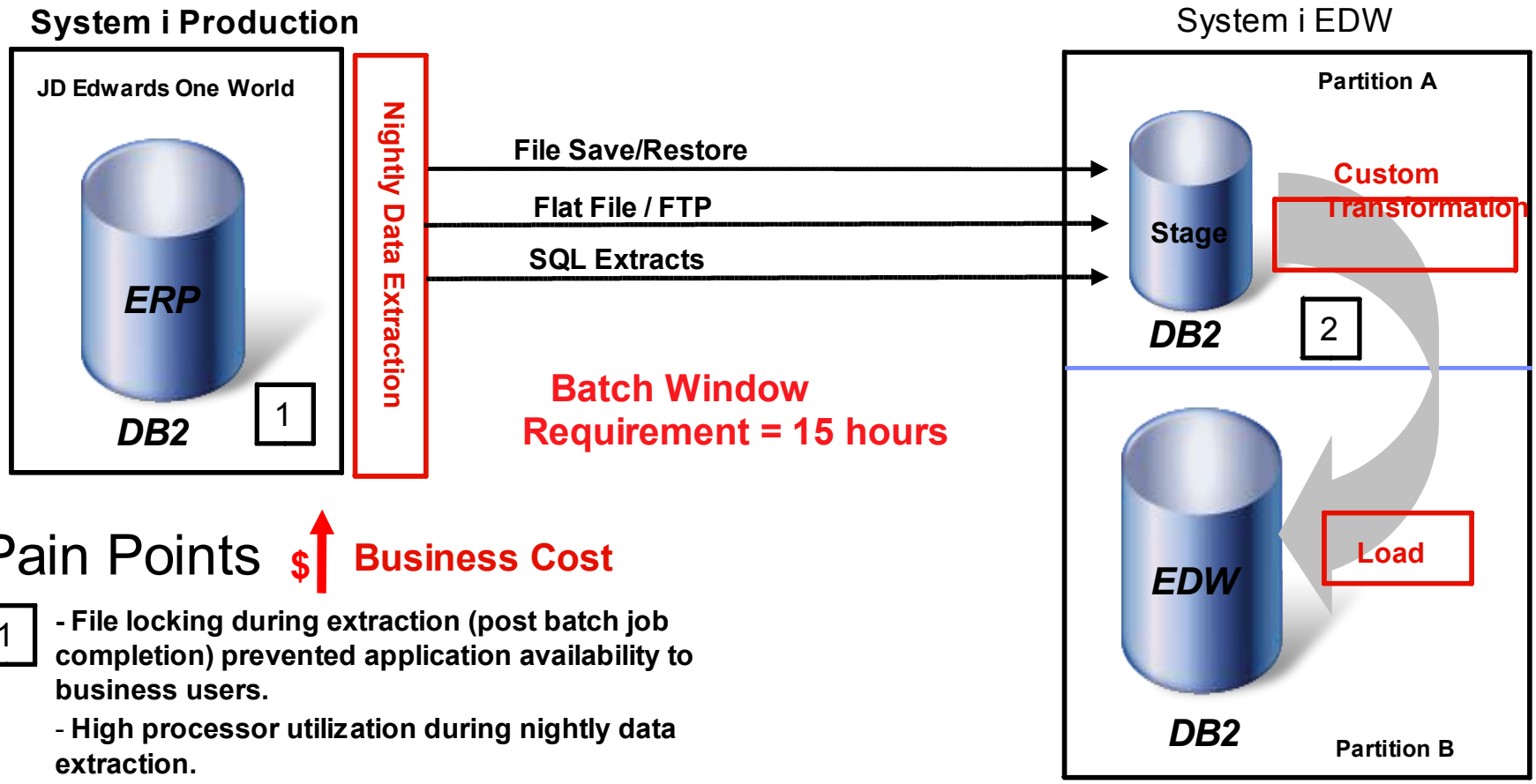
Log Based Change Data Capture



Customer Case Study 1 – Global Petroleum Refiner

"Addressing Batch Window Concerns – Integration to the EDW and E-Business".

Problem 1: Optimizing EDW Data Integration (Initial Architecture)



Pain Points $↑ Business Cost

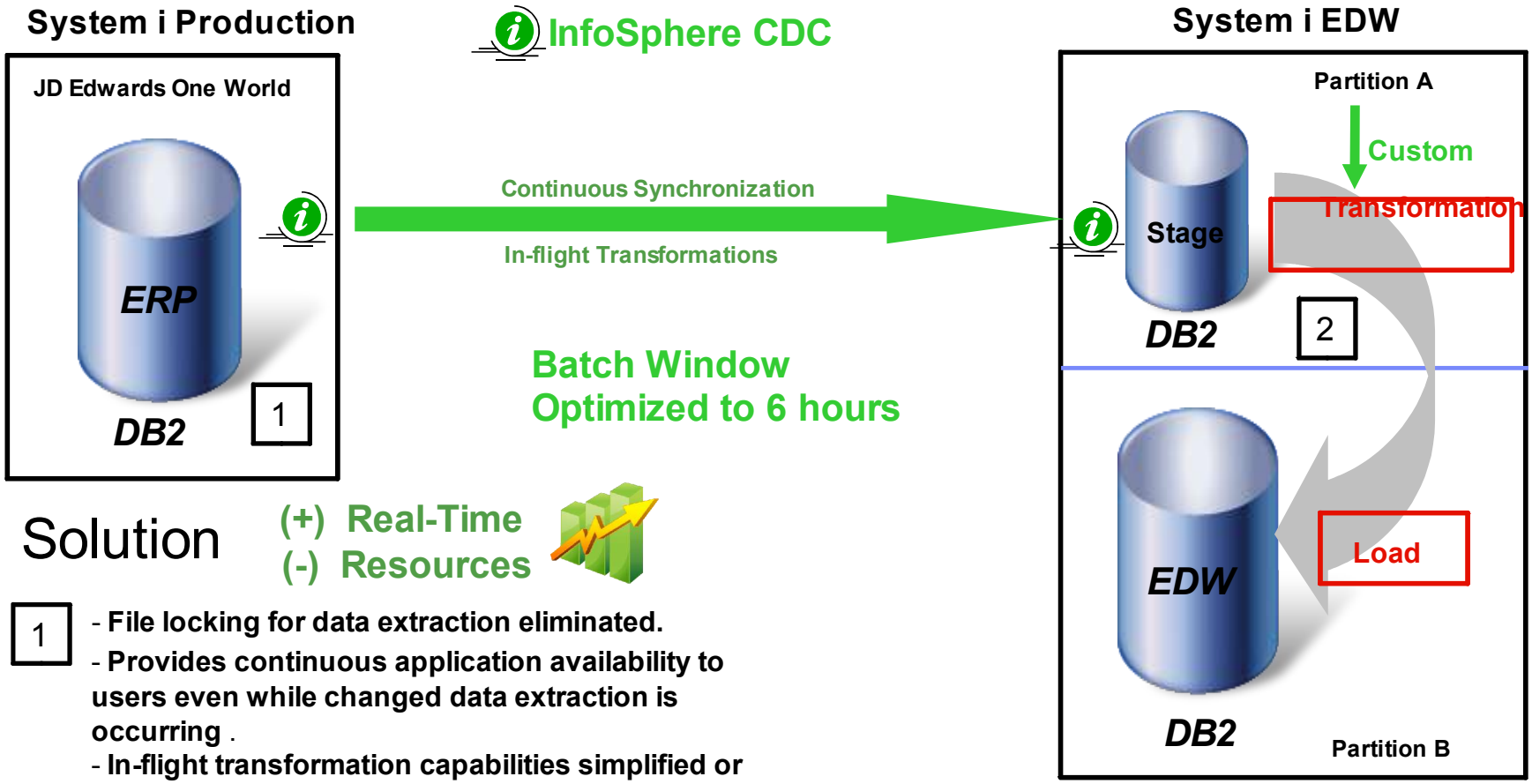
1 - File locking during extraction (post batch job completion) prevented application availability to business users.

- High processor utilization during nightly data extraction.

- 30% data growth/year which was lengthening extraction run time and impacting ability to complete EDW processing for start of next business day.

2 - Development costs of hand coding and maintaining customer transformation logic/ routines.

Problem 1: Optimizing EDW Data Integration (IBM Solution)



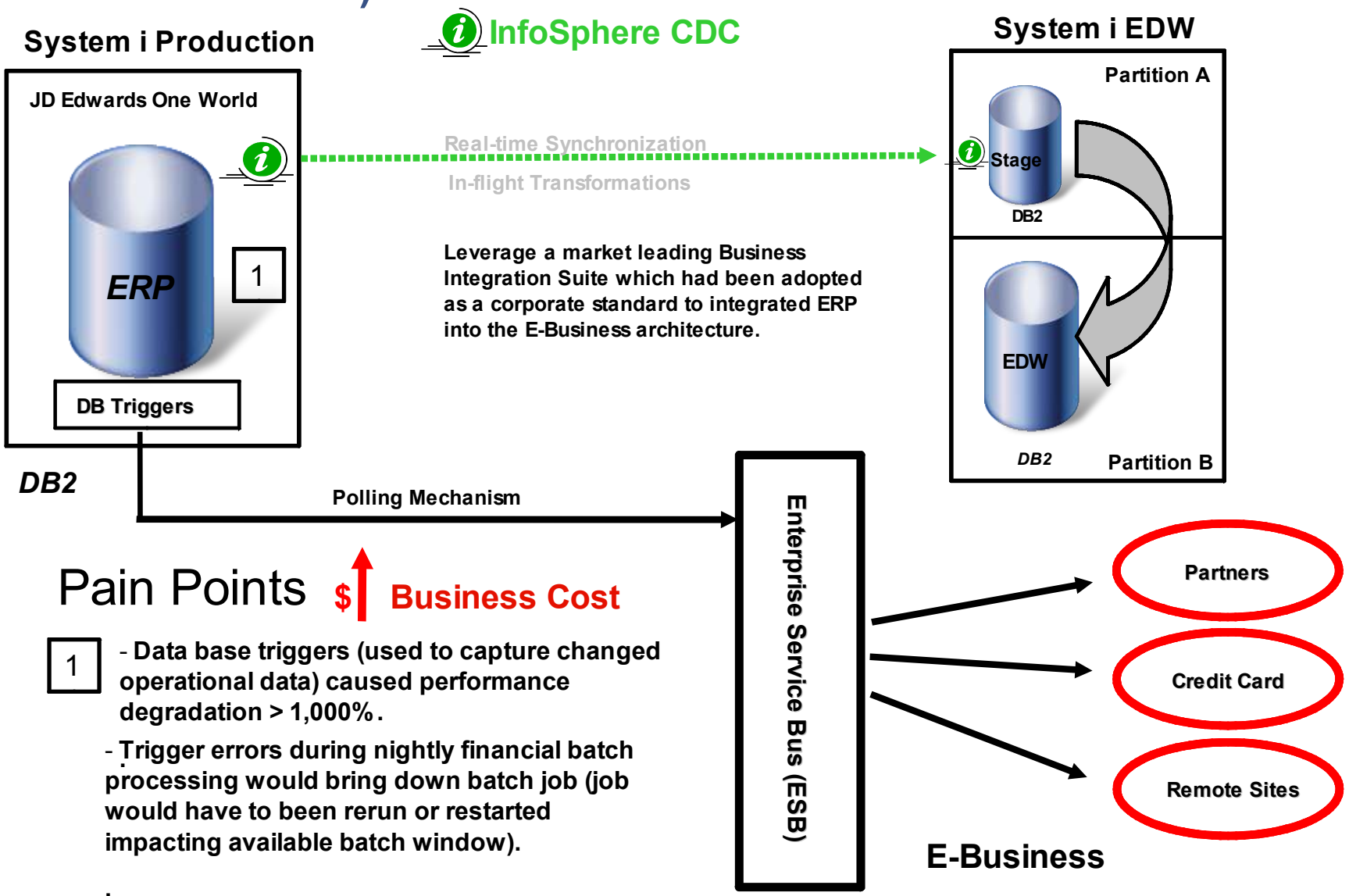
Solution

(+) Real-Time
(-) Resources

1 - File locking for data extraction eliminated.
- Provides continuous application availability to users even while changed data extraction is occurring .
- In-flight transformation capabilities simplified or eliminated many batch data extraction jobs.
- Compressed batch window savings allows company to continue to meet EDW SLA's with yearly data volume growth (scalability).

2 - Adding transformation capabilities of InfoSphere CDC has reduced development costs associated with custom coding.

Problem 2: Integrating ERP into E-Business (Initial Architecture)

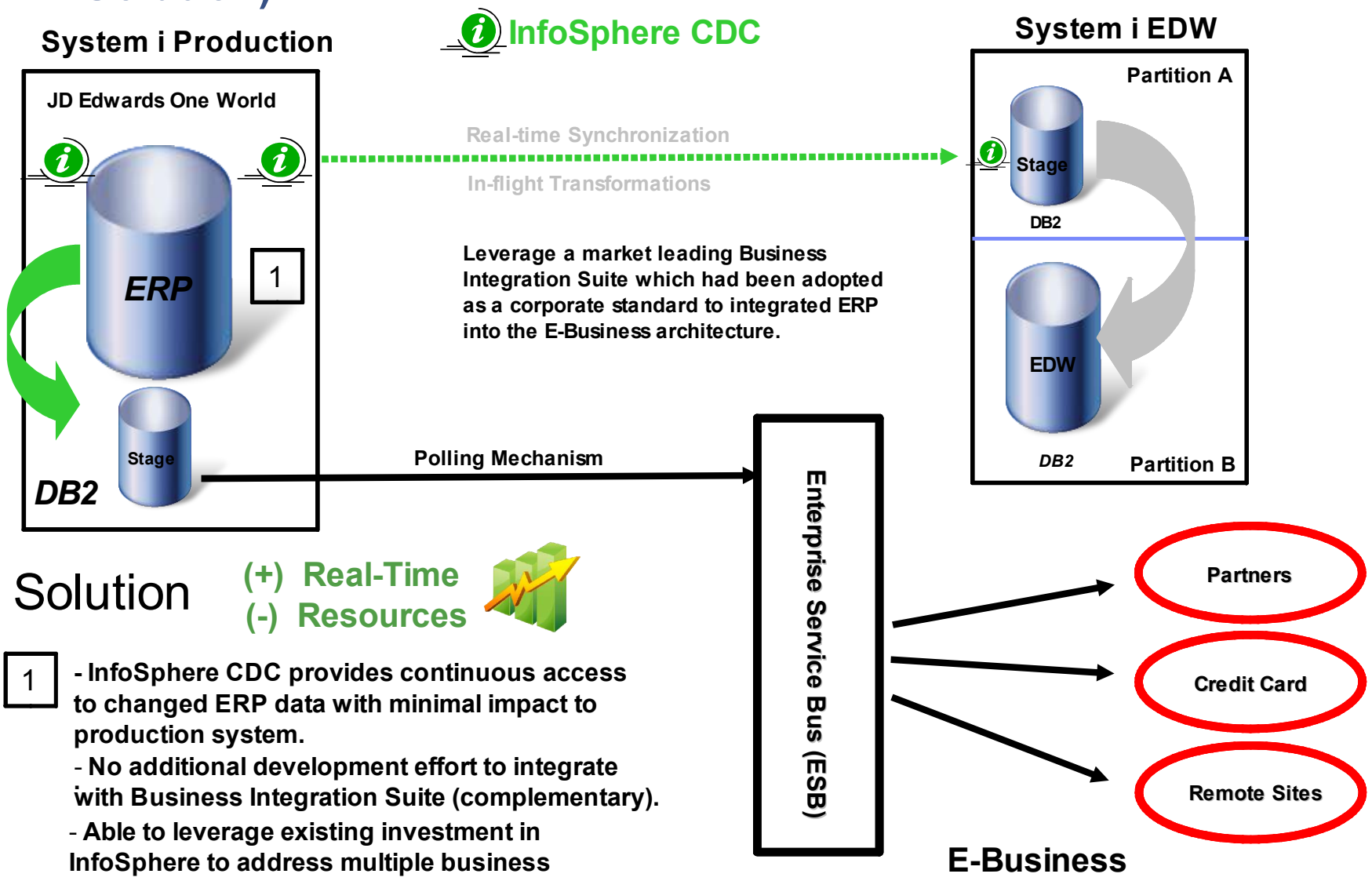


Pain Points $↑ Business Cost

1 - Data base triggers (used to capture changed operational data) caused performance degradation > 1,000%.

- Trigger errors during nightly financial batch processing would bring down batch job (job would have to been rerun or restarted impacting available batch window).

Problem 2: Integrating ERP into E-Business (IBM Solution)



Solution

(+) Real-Time
(-) Resources

1 - InfoSphere CDC provides continuous access to changed ERP data with minimal impact to production system.

- No additional development effort to integrate with Business Integration Suite (complementary).

- Able to leverage existing investment in InfoSphere to address multiple business challenges.

Global Petroleum Refiner – Benefits

Challenge

- Provide data extraction/delivery from System i based ERP application to support multiple lines of business (EDW, E-Business) while maintaining core application availability, system performance and reducing length of nightly batch window.
- Data volume growth of 30% yearly increasing nightly data extraction run time and processor utilization which threatened the companies ability to complete EDW processing for the start of the next business day.
- File locking during data extraction (post batch job completion) prevented application availability to business users for extended periods of time.

Solution

- IBM Infosphere CDC for System i implemented to provide continuous, low impact access and delivery of critical ERP data to EDW and E-Business line of business users.

Business/Cost Benefits

- Elimination of file locking during data extraction enabling continuous availability of critical business applications.
- Data extraction optimization which reduced the nightly batch window from 15 hours to 6 hours.
- Development costs reduced by simplifying or eliminating several custom developed batch processes.
- A scalable data extraction architecture allowing I/T to maintain EDW service levels with yearly data volume growth.
- A solution that worked with existing IT infrastructure and that was applied to solve multiple business problems.

"The InfoSphere technology represented such clearly superior solutions that we elected to proceed with aggressive implementations and then move on to other projects".

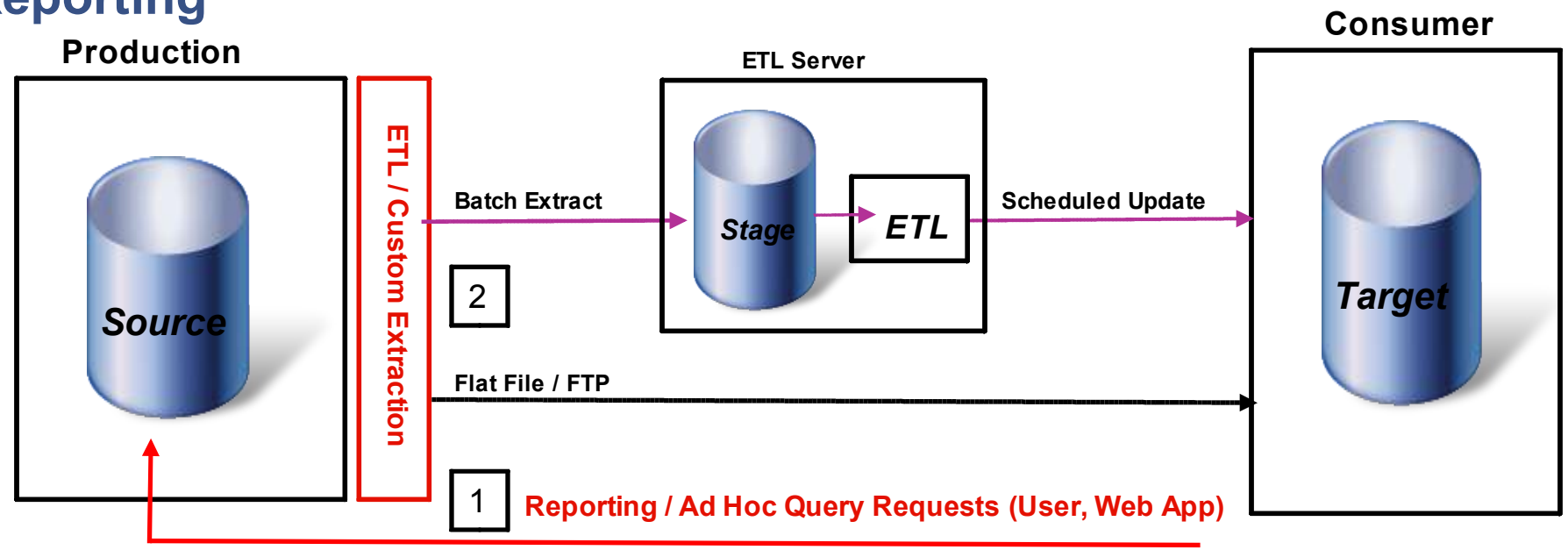
Kirk Chalk, Senior Staff Systems Architect.

IBM

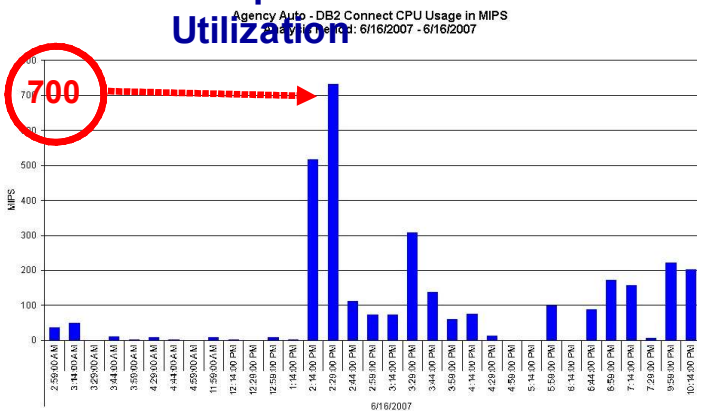
Customer Case Study 2 – Large Financial Institution

"Addressing Escalating Reporting Costs and Report Availability".

Data Synchronization Challenges for Customers to do Live Reporting



Sample MIPS Utilization



Pain Points $↑ Business Cost

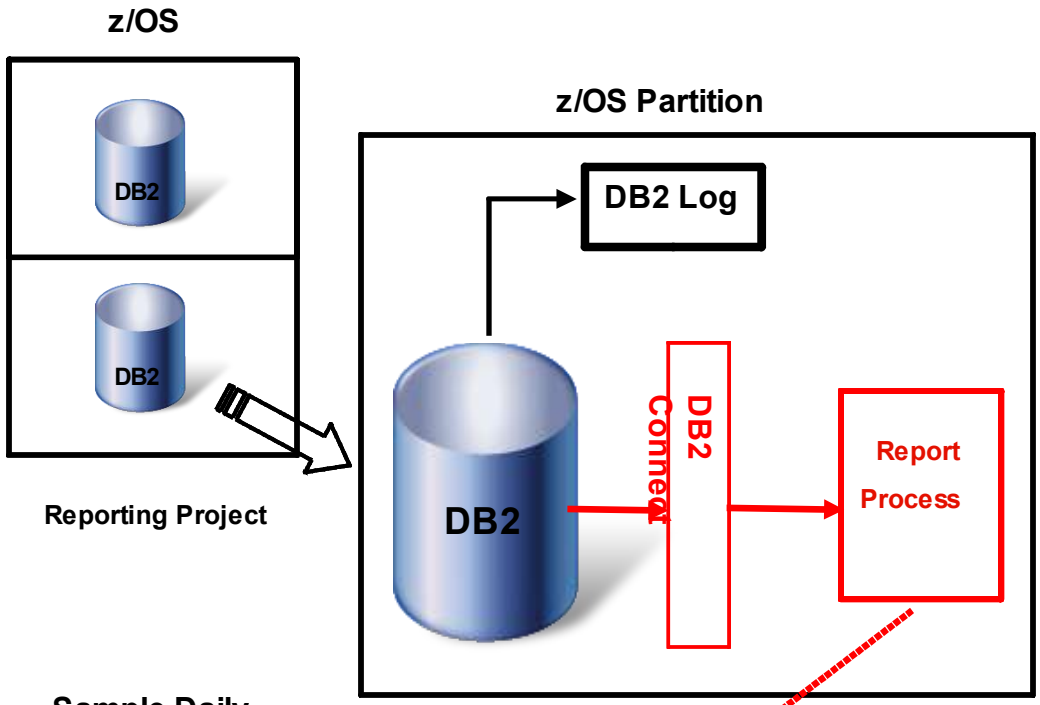
1

- Direct reporting consuming production resources (resource control).
- Cost of processing on demand query requests during normal business hours.
- Physical data design of production not optimum for some ad-hoc requests.

2

- Cost of data movement (growing data volumes, batch processes, development costs).
- Low availability/poor latency on target data.

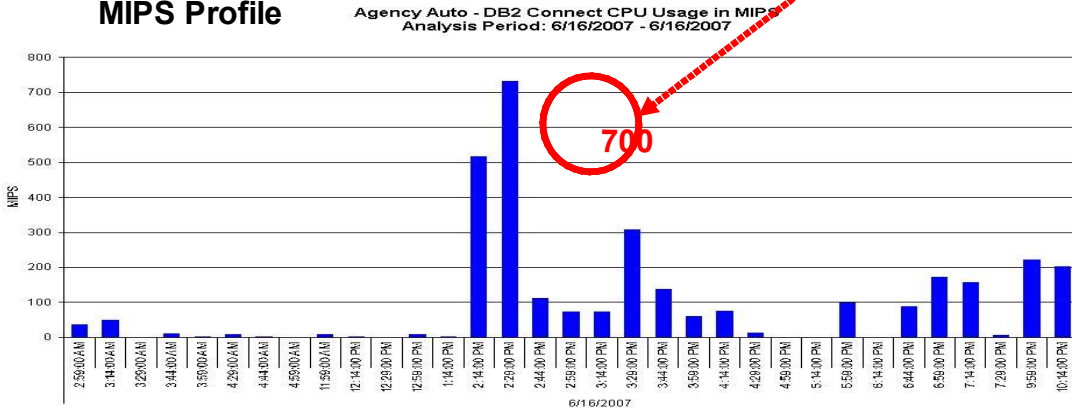
Large US Financial Customer - Problem



Challenge

- Hosted multiple partition z/OS environment with MIPS based pricing model.
- Escalating costs (MIPS consumption) for producing daily/weekly Microstrategy, Cognos reporting.
- Increasing data volumes and user reporting requirements.
- Requirement for near real-time data access for timely decision making.

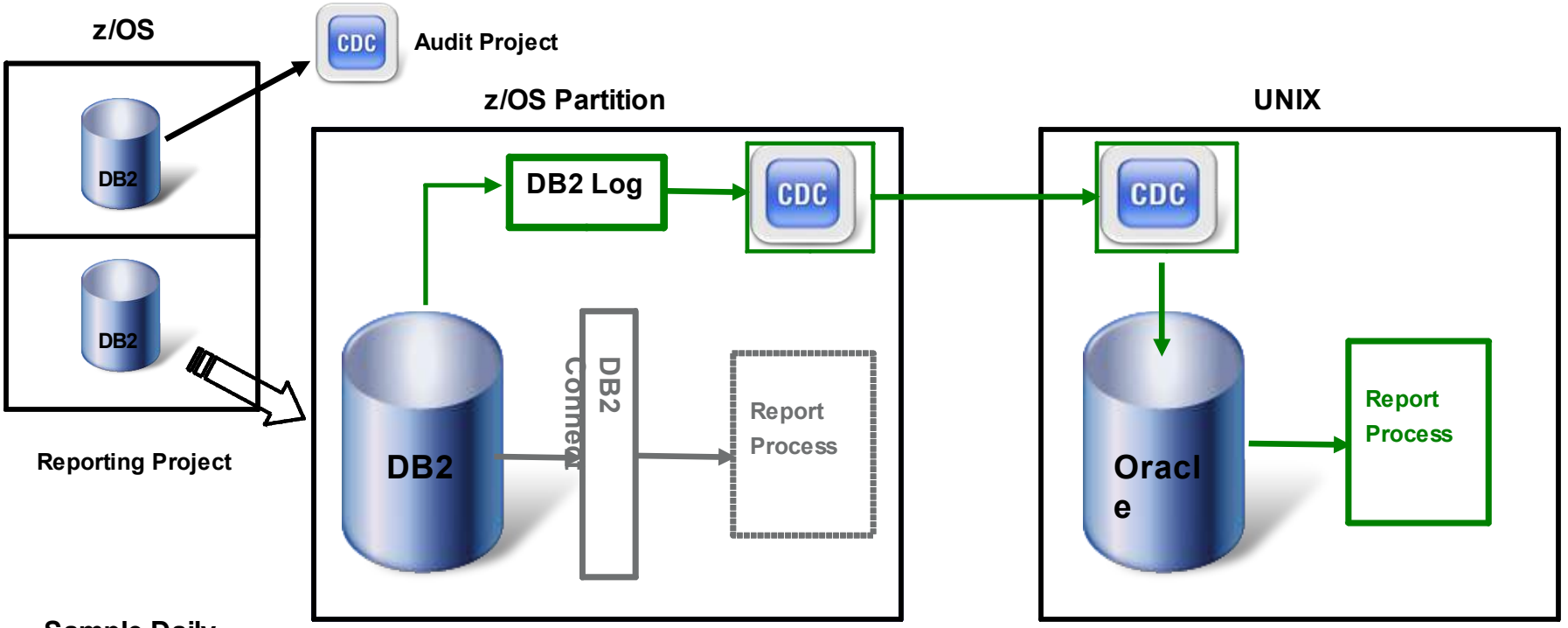
Sample Daily MIPS Profile



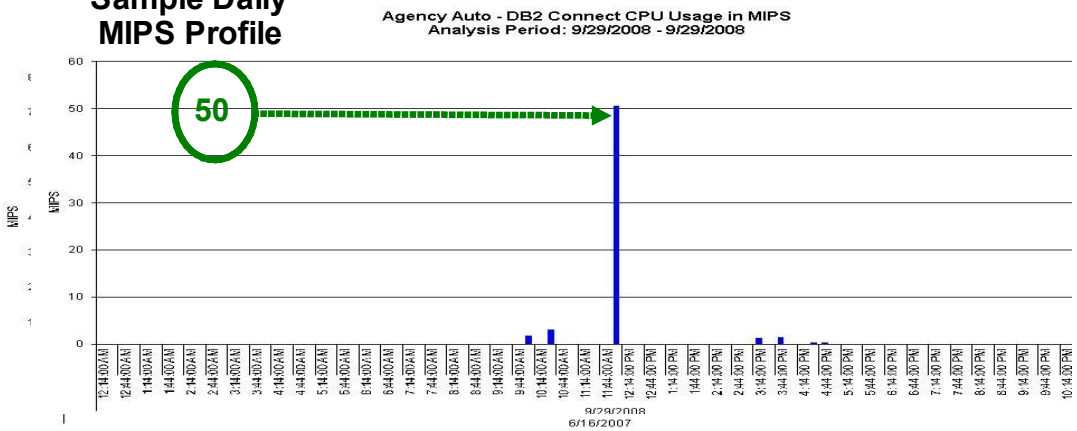
z/OS MIPS Profile

- Two significant CPU spikes daily (averaging 700 – 800 MIPS) generated by Microstrategy, Cognos report runs.
- Additional DB2 connect bursts due to adhoc report and query processing.

Large US Financial Customer - Solution



Sample Daily MIPS Profile



Solution

- Optimize report and query function to "Live Reporting" data store built on pre-existing infrastructure.
- Reduce cost of report generation by approximately 100K per month.
- Provide line of business users the ability to run reports on demand against current operational data.

Large US Financial Customer – Benefits

Challenge

- **Hosted z/OS environment supporting financial billing reconciliation reporting requirements (MIPS based pricing model).**
- **Projected data volume growth (approximated at 10% monthly) increasing resource consumption and total report generation costs.**
- **Reports generated nightly. Line of business looking for on-request/ad hoc reporting capability.**
- **Personal Lines Division looking for more agility and cost reduction opportunities for report generation.**

Solution

- IBM InfoSphere Change Data Capture to;
- Reduce resources consumption and cost data access and report processing.
- Enable On-demand, Live reporting.

Business Benefits

- Able to leverage technology they already owned (DB/Hardware) to build reporting Operational Data Store (ODS) infrastructure.
- Improved visibility to Line of Business by supporting on request query and reporting capability.

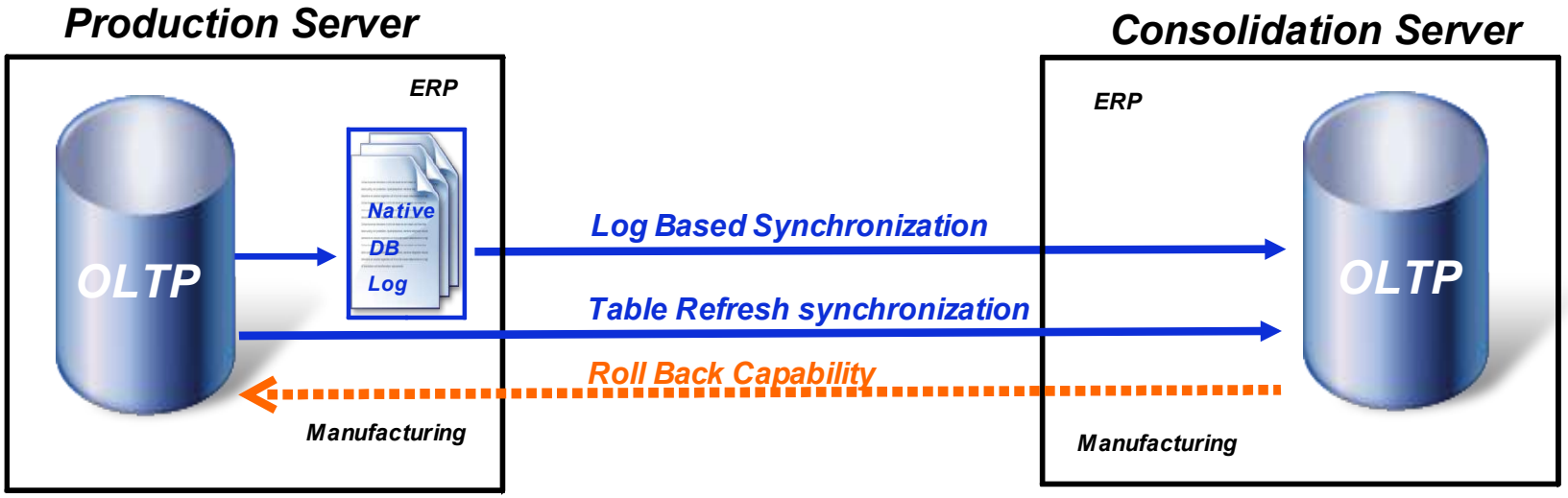
Cost Benefits

- Cost savings of approximately $100K per/ month.
- Return on software investment pay back in 3 months.
- Significant reduction in MIPS utilization, freeing re-allocation to other workloads.

Customer Case Study 3 – Large US Financial Company

"Minimizing Risk and Application Availability with Zero Down Time Migration".

InfoSphere CDC For Application Consolidation And Migration



Lower Risk/Cost Data Access

Keep data synchronized between current production server and a server deployed to test a new application upgrade/version, or a hardware/OS upgrade.

Roll Back Capability

In some cases once the migration has been completed, customers may want to rollback the migration to the old server. Mirroring and Refresh can be used to synchronize the old server with any data changes that have been made to the new server.

Large US Financial Customer – Benefits

Challenge

- Migrate critical production application and data from Sun severs environment to new HP hardware.
- How to accomplish migration with little to zero production downtime. Critical business application that deals with customer credit transactions. Application must always be available.
- Very large transactional data volumes.

Solution

- **Real-time synchronization using CDC.**
- **Chose IBM InfoSphere Change Data Capture to synchronize changes taking place on the old Sun Server replicating them to the HP hardware platform.**

Benefits

- **CDC migration strategy enabled little to zero downtime saving thousands $ $ in lost production credit transaction processing for each hour of downtime.**
- **CDC ensured no data loss.**
- **CDC reduced risk and provided security of a roll back strategy and along with a co-existence strategy.**

To Recap

Maximize cost savings, reduce risk and increase business visibility with InfoSphere Change Data Capture:

- Global petroleum refiner optimized their batch window **by over 50%** and leveraged the same investment to solve multiple business challenges.
- Large financial company benefits from a monthly cost savings of **$100K, pay back period of 3 months** to optimize reporting.
- US finance company **reduces significant revenue risk** by minimizing outage of mission critical credit card transaction application during hardware migration.

Are you making use of the CDC advantage?

Key Elements Of InfoSphere CDC Value Proposition

IMPACT (Lowers Risk and Cost)

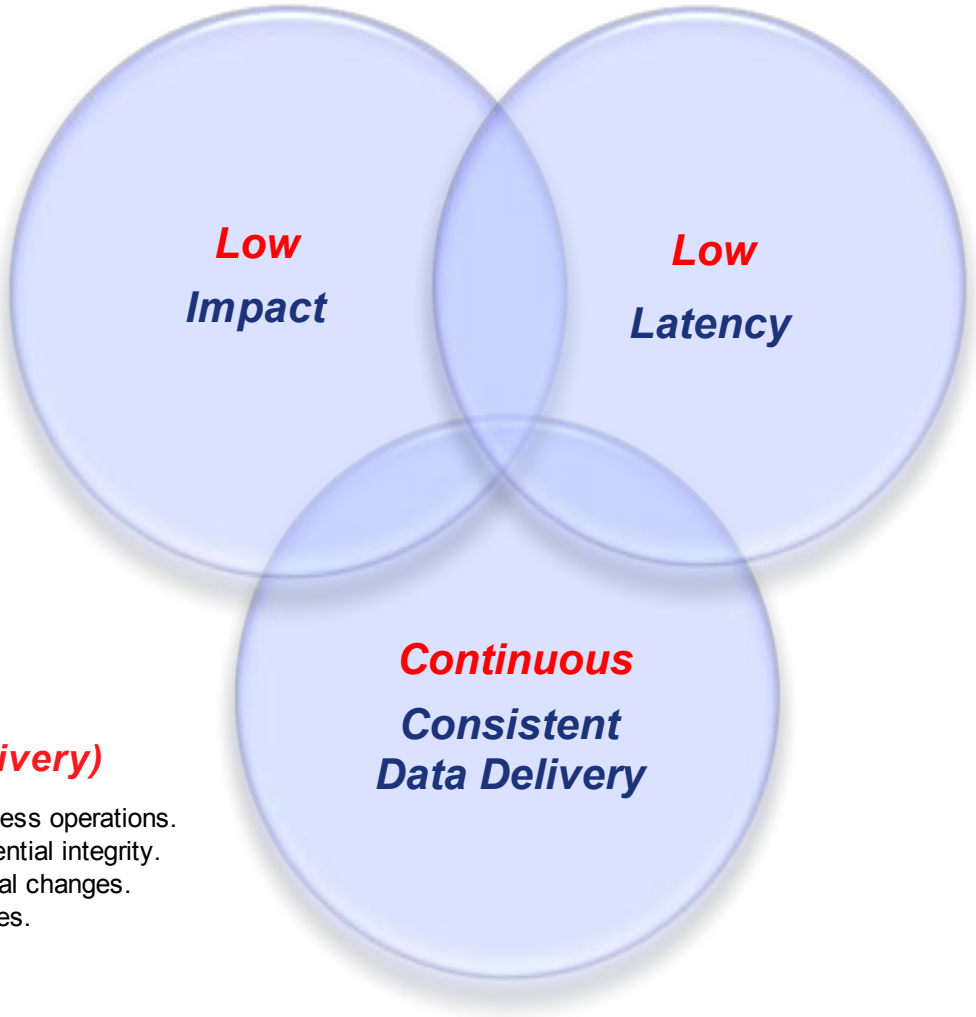
1. Lower cost of changed data access.
2. Use of native DB logs, documented overhead of 2-5%.
3. Non intrusive to applications and databases.
4. No use of database triggers.
5. Management easily integrated into existing IT operations.
6. Reduces risk to operational systems.

LATENCY (Increases Business Visibility)

1. Near zero latency for pervasive integration projects.
2. ETL can also deliver low latency but at significantly higher impact to production systems and mission-critical applications.

CONSISTENT DATA DELIVERY (Trusted Delivery)

1. Data pushed, delivered in continuous stream, continuous with business operations.
2. Transaction consistency maintained to preserve units of work, referential integrity.
3. Full transaction granularity, before and after image of all transactional changes.
4. Data event aware, can be used to trigger specific business processes.
5. Fault tolerance, recover to last committed transaction.



Get The Most Out Of The CDC Advantage

Visit our webpage:

http://www-01.ibm.com/software/data/infosphere/change-data-capture/

Information Management Library:

http://www-01.ibm.com/software/data/integration/en_US/sw-library/

For more information, please contact your IBM Sales Rep

Jason Sturgess
jsturgess@ca.ibm.com

The IBM InfoSphere Vision

An Industry Unique Information Platform

- **Simplify delivery of Trusted Information**
- **Accelerate client value**
- **Promote collaboration**
- **Mitigate risk**
- **Modular, yet integrated**
- **Scalable – project to enterprise**

Bu sunum 25 Haziran 2009 tarihinde Kuruçeşme Divan'da yapılan Gerçek Zamanlı Güvenilir Veri Entegrasyonu toplantısı için hazırlanmıştır.

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