




IBM Software Partner Academy Program


Telefonkonferenz

Echtzeit Replikation mit Infosphere Change Data Capture

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	<ul style="list-style-type: none"> - 15 years experience in DB2 and Oracle (OCP) environments - 7 years DataMirror – Integration and Migration projects - Since 2/2008 IBM Software Group – Technical Sales Information Management

Die IOD Conference in Berlin ist die Chance !



Highlights:

- **Technical Track und Business Leadership Track:** In über 300 Sessions präsentierten Kunden, BPs und IBM Experten Neuigkeiten und tiefe Einblicke (derzeit 30 Kundenvorträge aus D.!!!)
- **Seperate Tagesveranstaltung für C-Level-Kontakte** inklusive Executive Dinner
- **Sondertagesveranstaltung für deutsche Public-Kunden am Dienstag**
- **Industriespezifische Agenden** (Industry Roadmaps) für ausgewählte Branchen
- Möglichkeit von **Einzelmeetings mit IBM Executives**
- **„Meet the Expert“** Sessions zur individuellen Vertiefung/kundenspezifischen Diskussion
- Weiterbildungsmöglichkeiten, Hands-on Labs und Zertifizierungen, Live-Produktdemos

› Die wichtigste Veranstaltung nach der CeBIT!

DataMirror Corp.

- Gegründet 1993; Firmensitz in Toronto
- TSX: DMC (bis 9/2007 Übernahme durch IBM)
- Präsenz in Nord America, Asien & Europa
- Über 2.300 Unternehmen weltweit nutzen DataMirror Software. Mehr als 10000 Lizenzen.
- Führender Hersteller für **Change Data Capture (CDC)** Lösungen

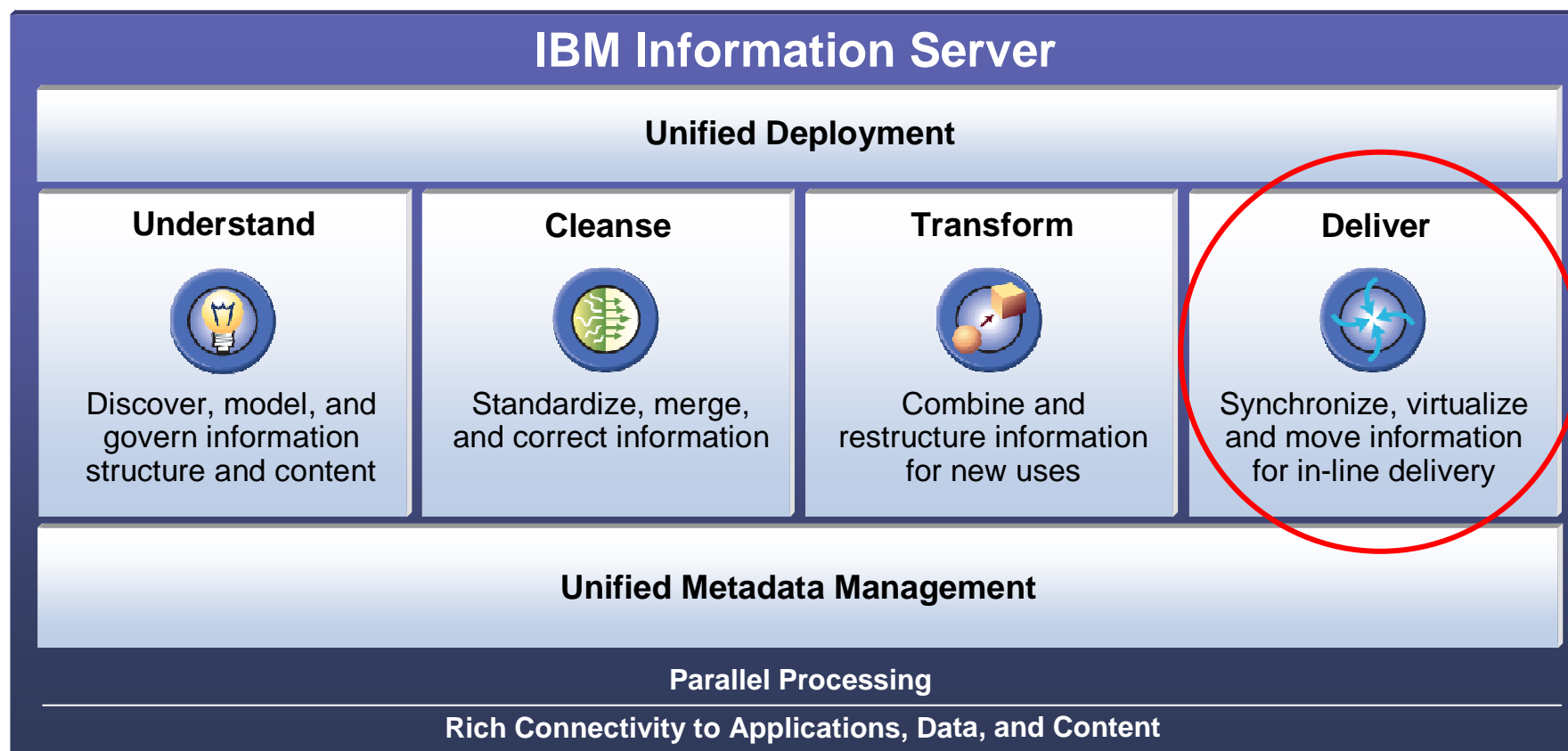


Information On Demand „Die Übersicht“



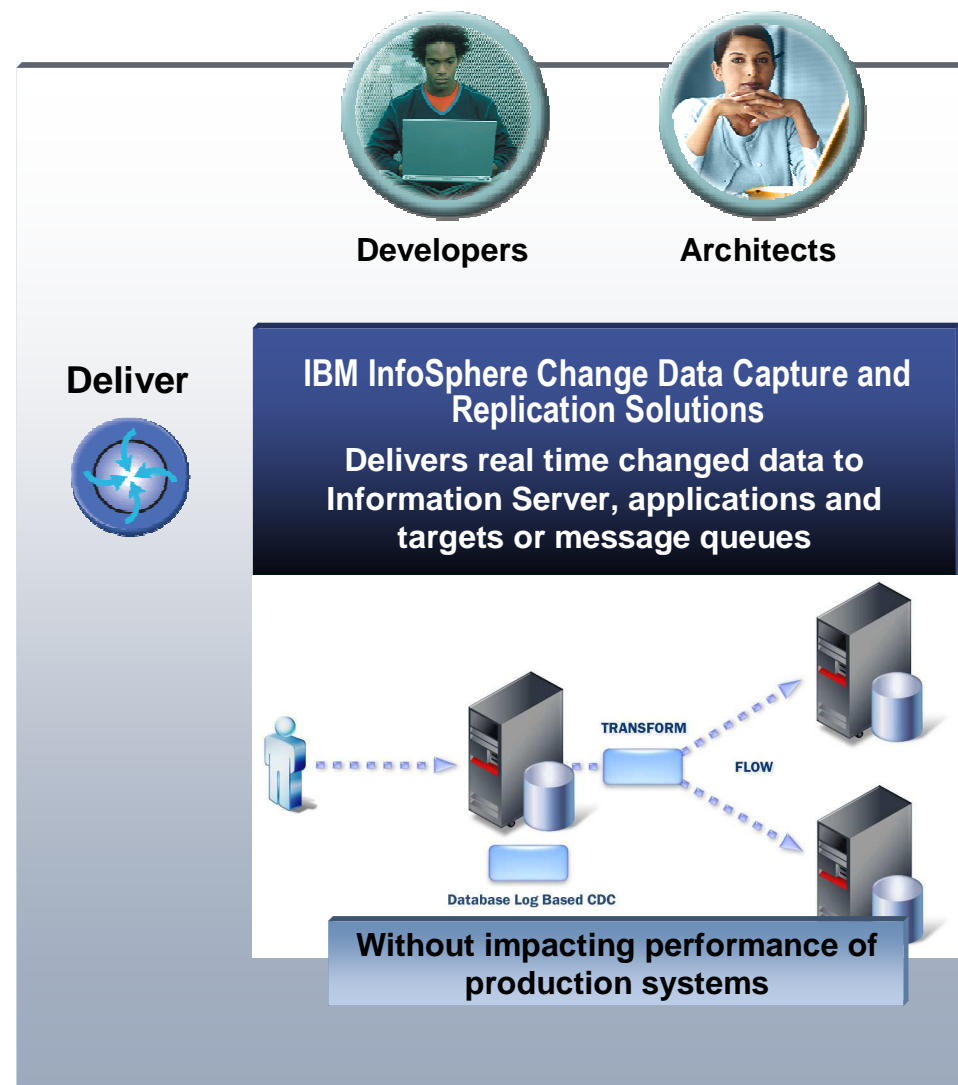
IBM InfoSphere Information Server

- *Bereitstellung von zuverlässigen Informationen*
- *InfoSphere CDC ergänzt das Deliver Modul von IBM InfoSphere Information Server*
- *InfoSphere ist Teil des IBM Software ValueNet*



What is InfoSphere CDC

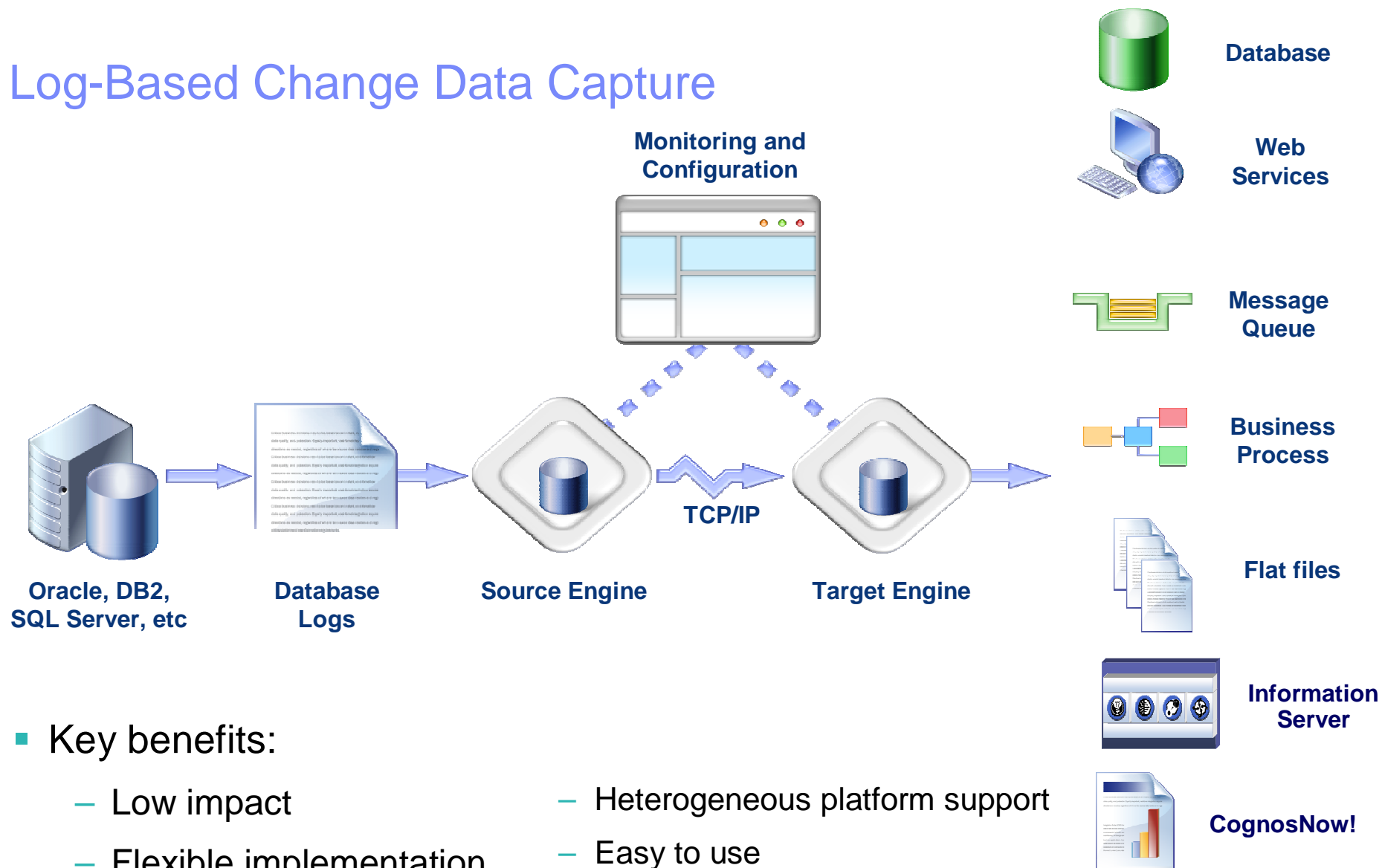
- **Family of products to support any environment**
 - Each product built to support specific client environment – customers can choose product based on their source and target environment
- **Provides real-time change data capture and delivery for**
 - Dynamic change data integration
 - Synchronization
 - Replication
- **Minimal impact on production systems**
- **High scalability and end-to-end performance**
- **Guaranteed data integrity**



Expansive Source, Target, Platform Support

DATABASES Source & Target	TARGETS	NETWORK PROTOCOL	MESSAGE QUEUE	OPERATING SYSTEMS	HARDWARE PLATFORMS
DB2 z/OS	Teradata	TCP/IP	JMS	IBM i OS	IBM i OS
Oracle	Information Server		MQ Series	z/OS	IBM System z
Sybase	IBM Cognos Now!		TIBCO	AIX	IBM System p
MS SQL Server	Netezza		WebMethods	HP-UX	HP PA-RISC
DB2 UDB			BEA	Solaris	HP Itanium
DB2 i				MS Windows	Intel
Informix				RedHat, SUSE Linux	Sun

Log-Based Change Data Capture

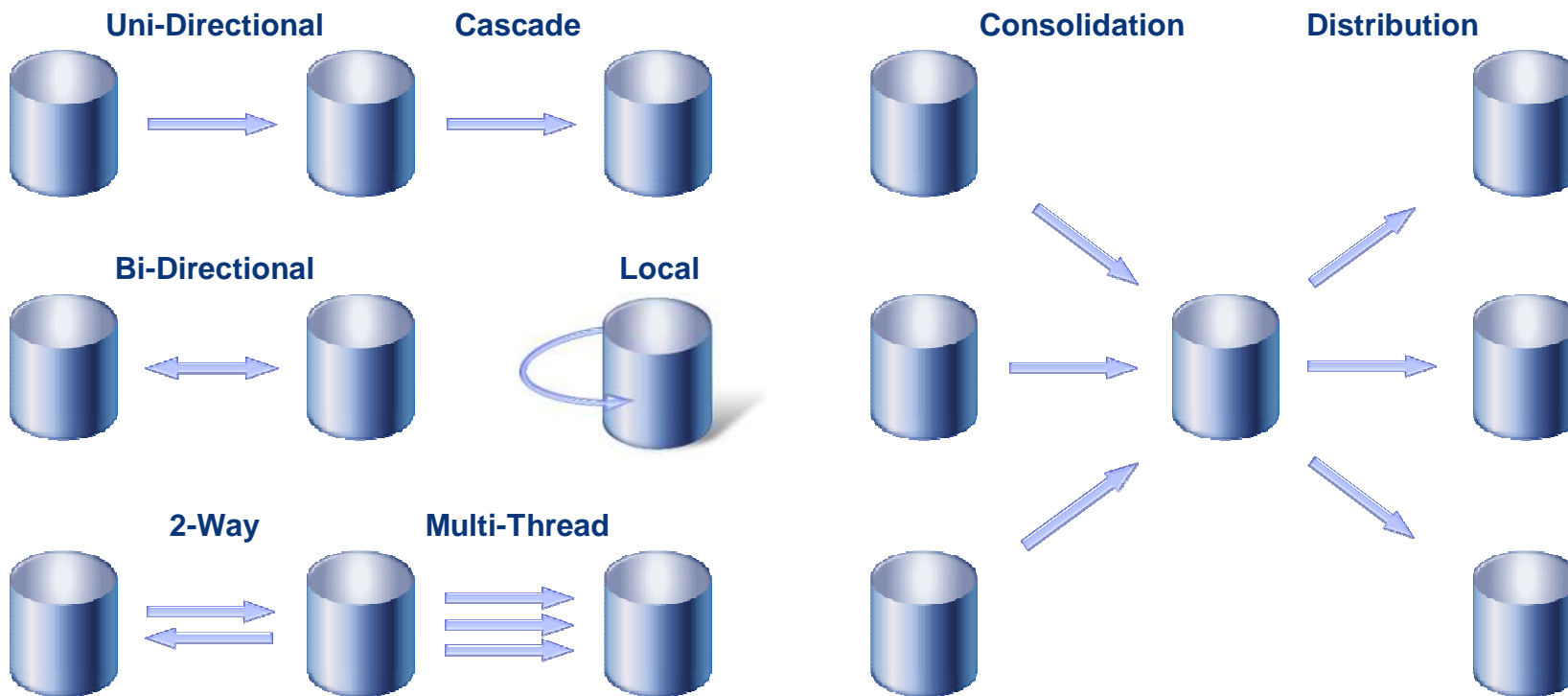


■ Key benefits:

- Low impact
- Flexible implementation
- Heterogeneous platform support
- Easy to use

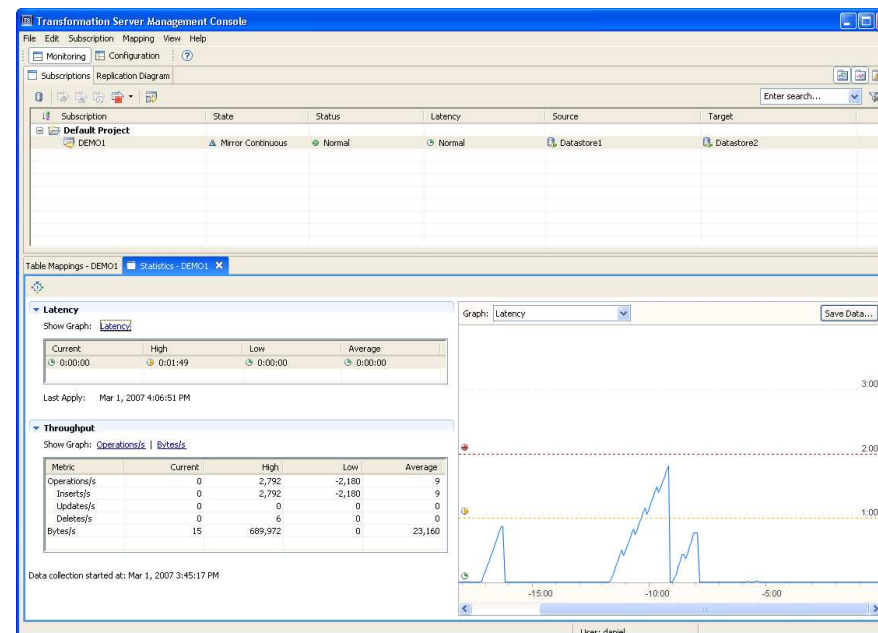
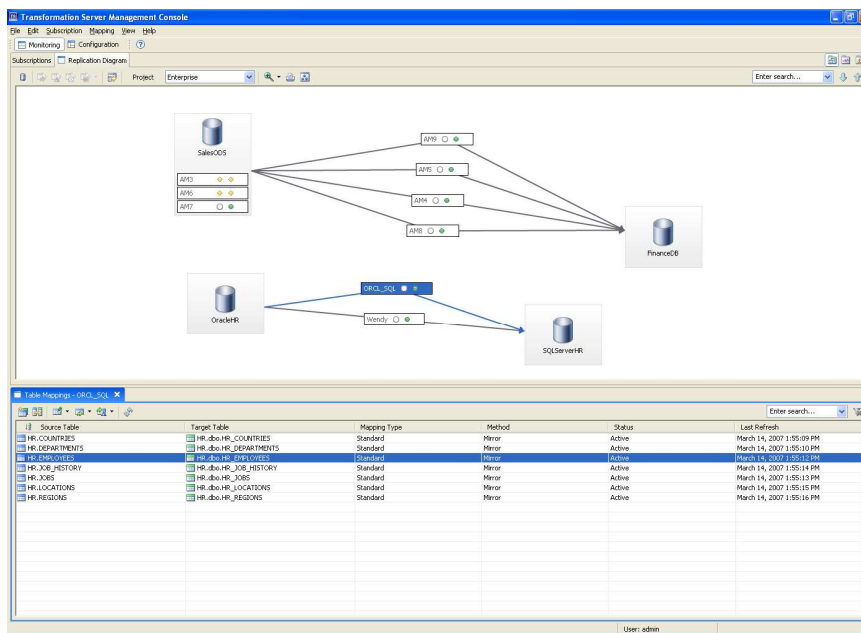
Flexible Implementation

- Supports all topologies and environments
 - Conflict detection & resolution maintains data integrity
 - 3 Modes for Replication: Continuous, Net-Change and Refresh



Easy to Use

- Java-based GUI for configuration, administration, and monitoring
 - Manage data integration processes from one screen
 - Wizards and task automation
 - No programming required



Low Impact

- Log-based CDC captures data without interacting with database
 - 0.05% system resources required to process 300+GB

- No changes or upgrades to applications and schemas required

- Peer-to-peer architecture does not require additional hardware

- Sending only changed data requires minimal network bandwidth

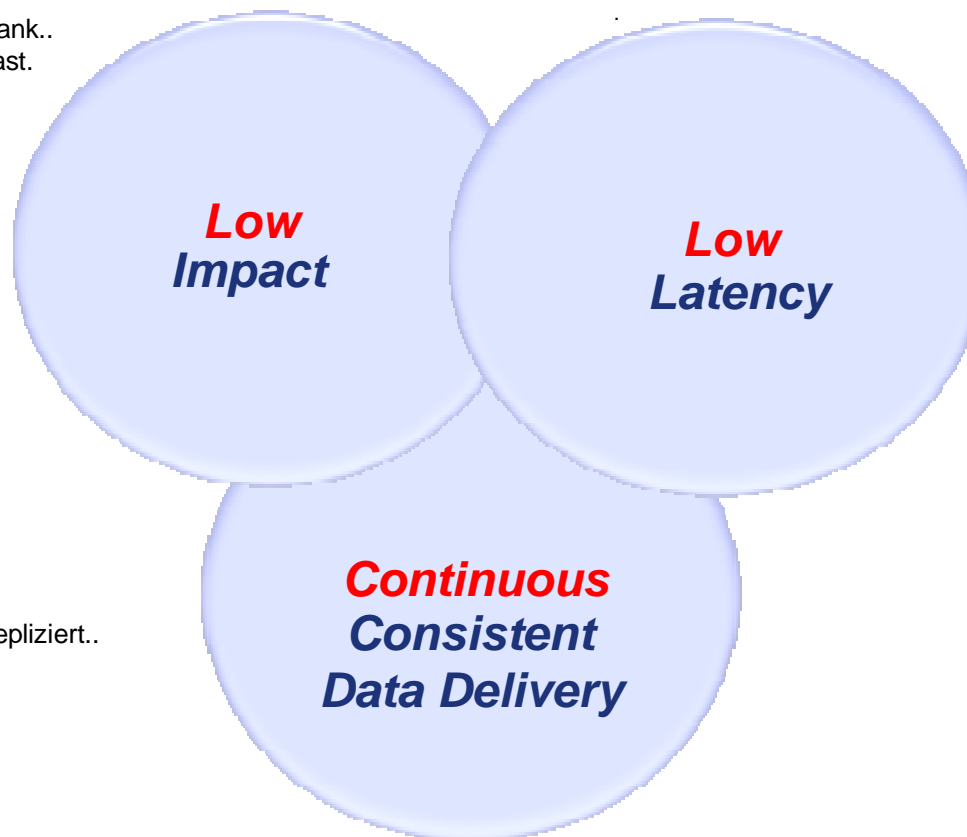
InfoSphere CDC Value Proposition

IMPACT

1. Reduziert Risiko für operative Systeme.
2. Keine Änderungen an Anwendungen und Datenbank..
3. Lesen der Datenbanklogs. Geringe zusätzliche Last.
4. Keine Datenbanktrigger.
5. Zentrale graphische Administration.
6. Ersetzt zeit- und rechenintensive Batchläufe.

LATENCY

1. Replikation in Echtzeit nahezu kein zeitlicher Versatz.

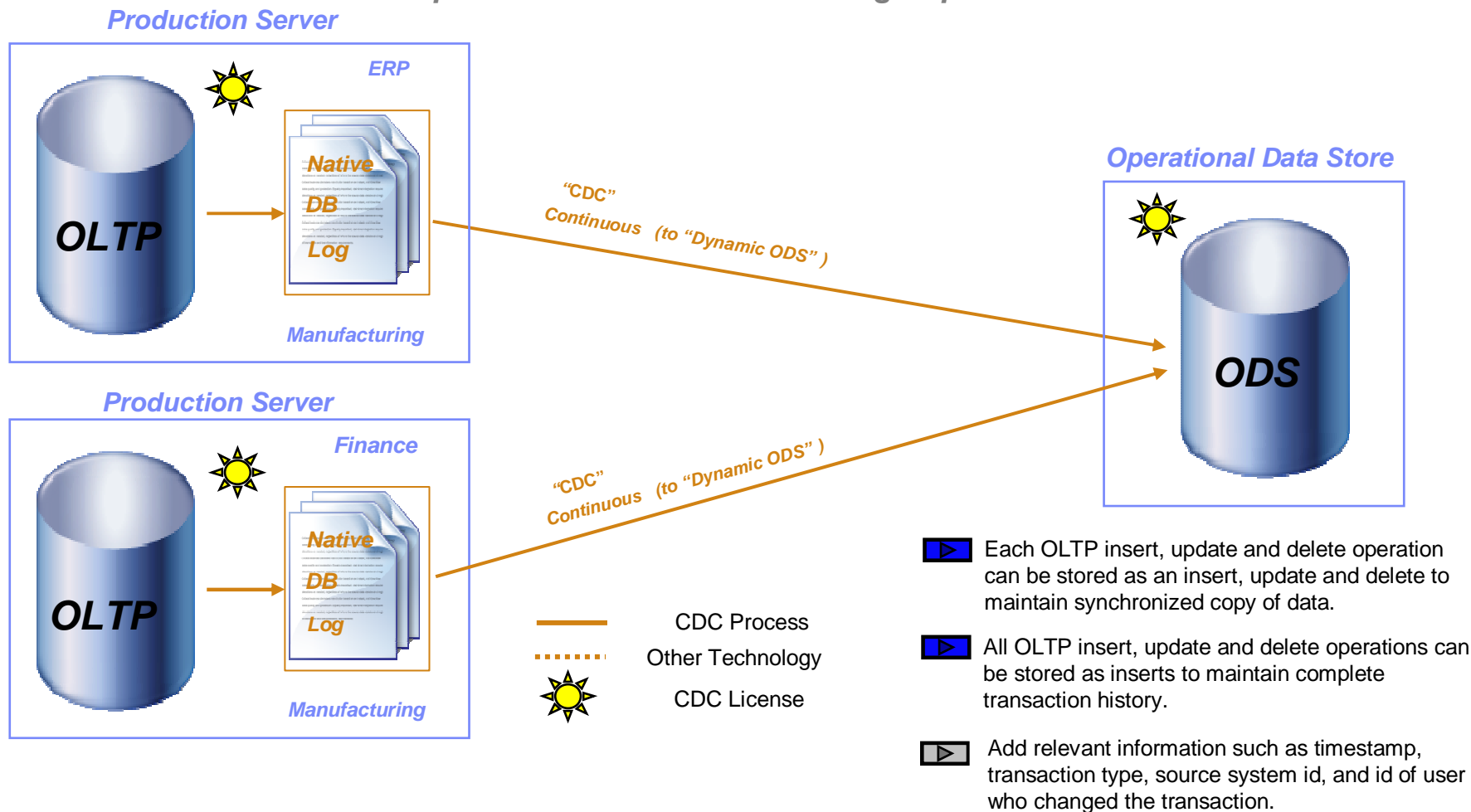


CONSISTENT DATA DELIVERY

1. Daten werden von der Quelle aus kontinuierlich repliziert..
2. Transaktions Konsistenz..
3. Entdecken von Events in der Datenbank.
5. Fehlertolerant.

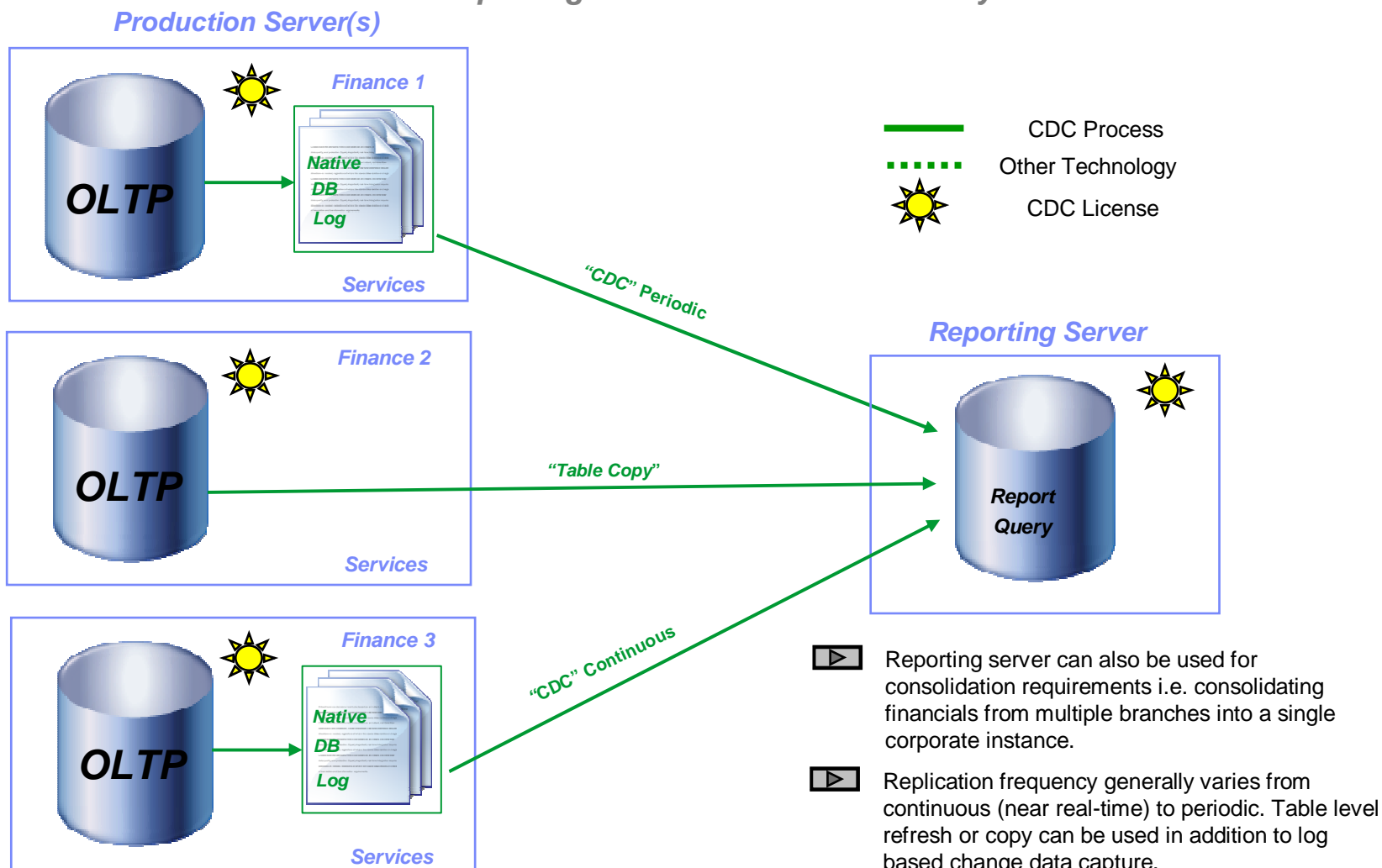
Building A Low Latency ODS for Operational Reporting and Auditing

“Solution deployed to improve visibility into lines of business for organizations with Operational BI and Data Auditing requirements”



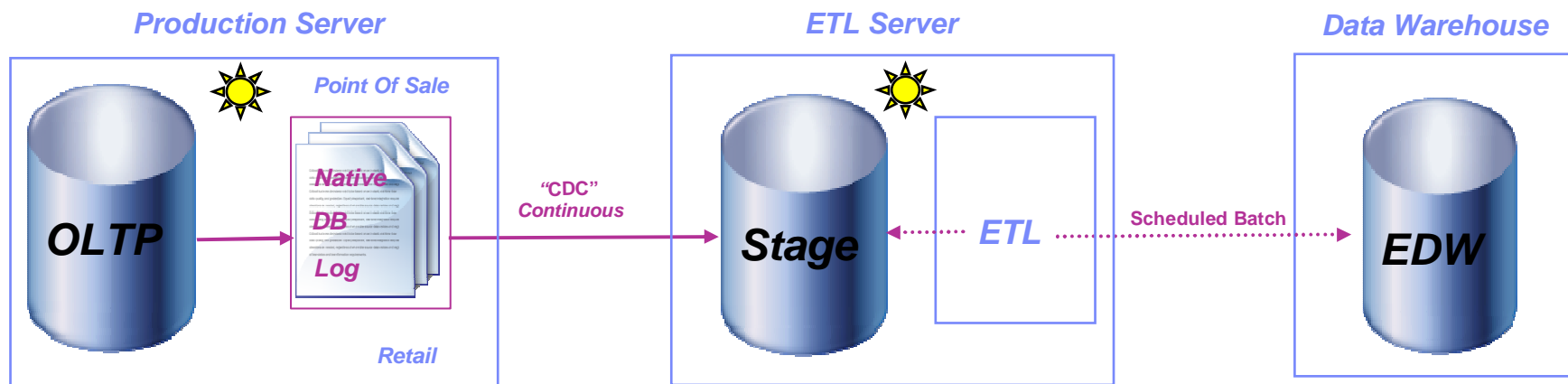
Offloading Production Query & Reporting Cycles




“Solution deployed to allow organizations to offload the impact of query and reporting to a non mission critical system”.





Complementing An Existing ETL Technology

“Solution deployed to improve visibility into lines of business (i.e. Dynamic Warehousing) and help manage impact concerns caused by ETL on mission critical systems”



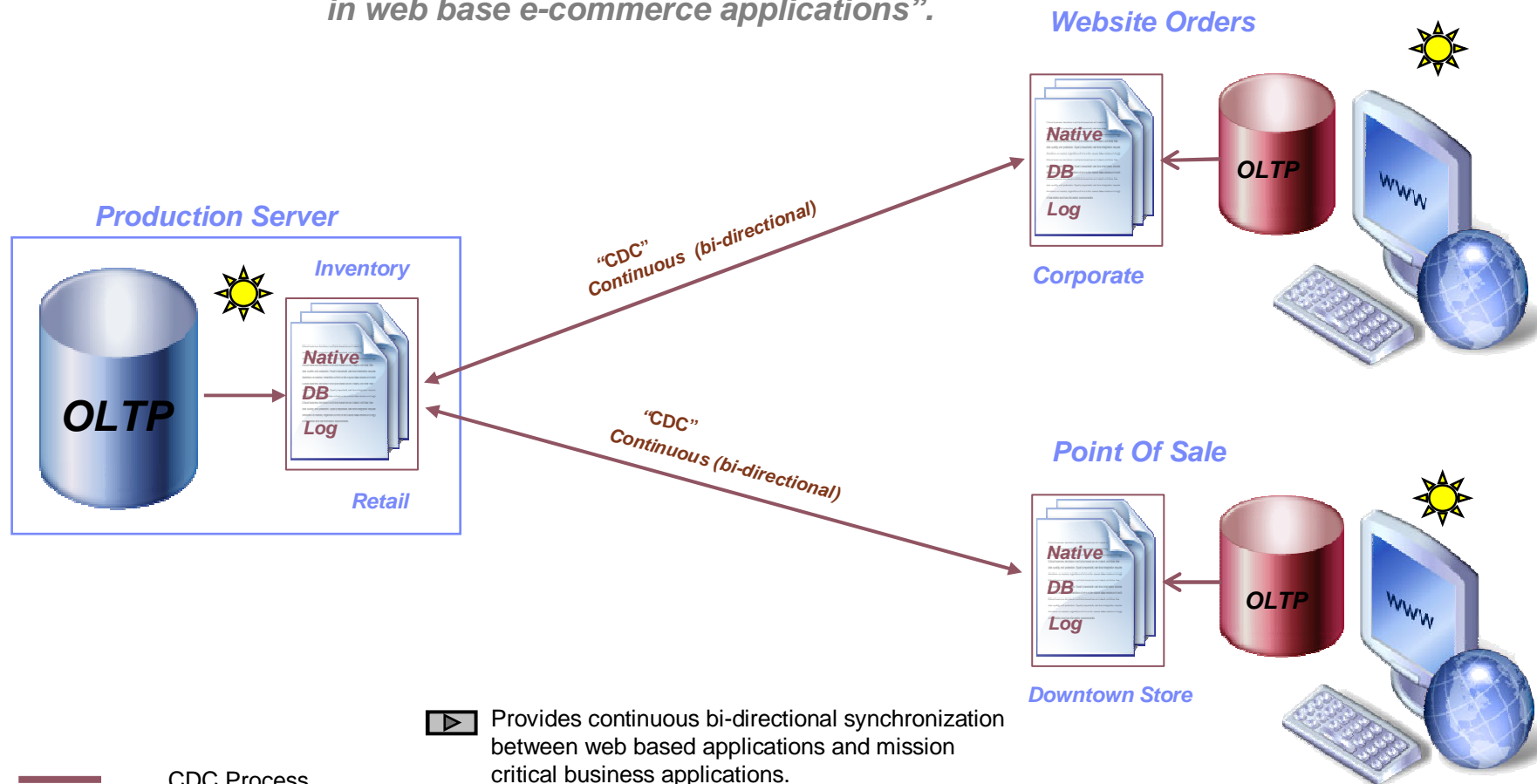
-  CDC Process
-  Other Technology
-  CDC License

-  Stage can be:
 1. Relational Table
 2. Flat File
 3. Message Queue
 4. Direct to ETL

-  Complementary ETL Technologies:
 1. Informatica "Power Center"
 2. Business Objects "Data Integrator"
 3. Ab Initio
 4. IBM "DataStage" (has native integration)

e-Commerce Application Synchronization

“Solution deployed to provide continuous customer, sales and inventory visibility in web base e-commerce applications”.

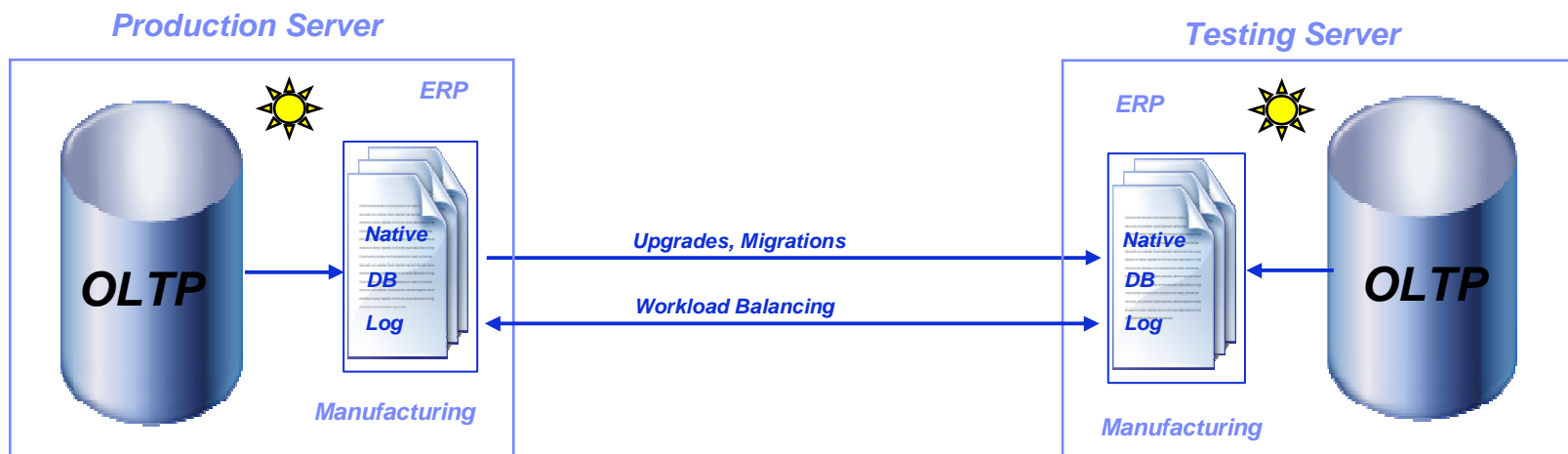


- CDC Process
- Other Technology
- CDC License

- Provides continuous bi-directional synchronization between web based applications and mission critical business applications.
- Helps organizations improve customer online shopping experience with improved visibility into inventory and customer shopping activities.

Data Synchronization for Upgrades, Migrations and Workload Balancing

“Solution deployed to help IT support application, database and platform migrations”.

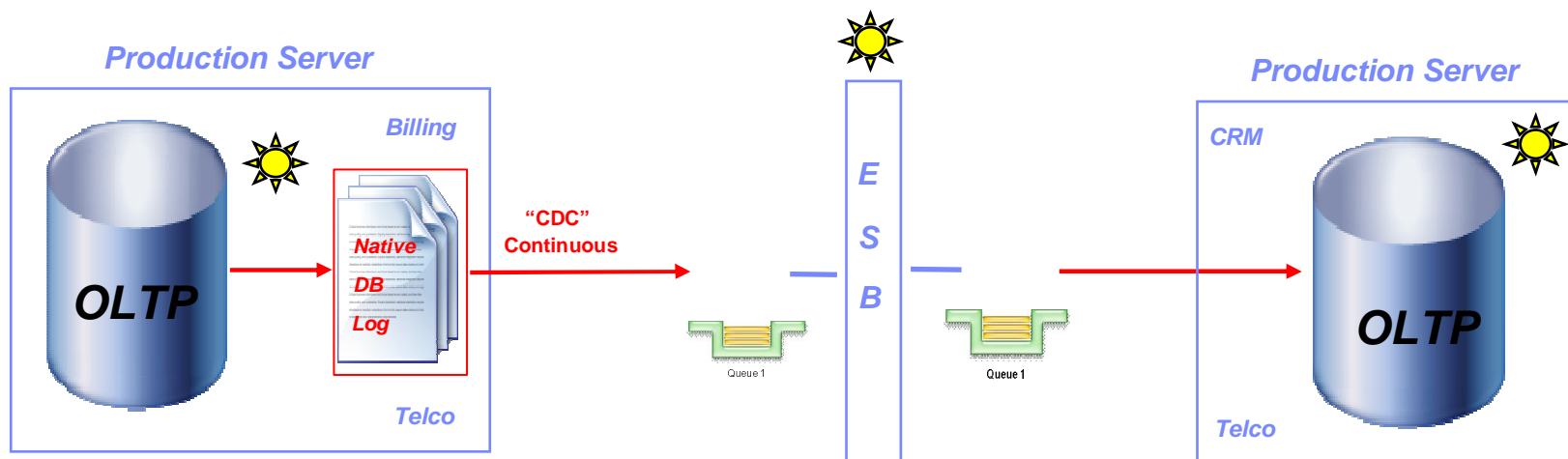


- CDC Process
- Other Technology
- CDC License

- Keep data synchronized between current production server and a server deployed to test a new application upgrade/version, or a hardware/OS upgrade.
- Workload balancing capability (i.e. master to master support) allows database instances to remain synchronized where dual or double data entry is a requirement (i.e. data entry occurring on both systems at the same time).

Data Event Synchronization via an Enterprise Service Bus (ESB)

“Solution deployed to provide real time data feeds for SOA and application integration business requirements”.



- CDC Process
- Other Technology
- CDC License

Complimentary ESB Technologies:

1. IBM “MQ Series”
2. TIBCO “Business Works”
3. BEA “Aqualogic”
4. WebMethods “Fabric”

A license would reside on the server that hosts the message oriented middleware.

Customer Sample 1

Business Challenge:

The tour operator is Europe's top number for last minute travels for the last 20 years with more than 150 shops in 6 European countries. Queries from their shops to their travel offer database on System i significantly impacted the performance of the system.

Business Value:

The outcome of real-time processing with InfoSphere CDC increased customer satisfaction due to much better response times when querying the database. Additionally they could remove load from their system i and also improve performance there. Cost savings in regards of hardware have been enormous.

Solution:

InfoSphere CDC replicates the travel offer database in parallel from System i to four separate Linux Oracle based systems in realtime. They use a load balancer to divide up the queries from the shops between the four Linux Oracle systems.

**Last Minute Tour Operator –
Realtime Replication of travel
offers**

Customer Sample 2

Business Challenge:

The customer is a leading manufacturer of electronic sensors and electronic components used for process automation. Employees in Germany, Asia and USA ran online reports on their ERP system (System i) which compromised the performance of the system and put too much load on the network. Due to this, they were going to have to upgrade the system i and the network bandwidth.

Business Value:

The investment for InfoSphere CDC and Linux-servers in these locations were much less than upgrading the hardware in Germany and they could even decrease the bandwidth between the locations. They have better performance on the production machine. Result: Tremendous cost savings on hardware and the network and increased service for their users.

Solution:

InfoSphere CDC replicates their ERP data (System i) into Operational Data Stores (Oracle/Linux) installed in these locations.

In addition they replicate data out of their ERP system to a Web based information system where customers can check delivery dates etc.

Global manufacturing company –
ERP Performance Compromised

Customer Sample 3

Business Challenge:

The customer is among the leading group of companies in the international airport business. The company operates one of the world's most important air transportation hubs. The luggage management systems at the airport must be available 24/7.

Business Value:

Infosphere CDC for Oracle Replication helps the customer to meet the requirements of their service level agreements.

Solution:

Infosphere CDC for Oracle Replication keeps the AIX/Oracle based luggage management systems highly available and provides switch- and failover routines in case of planned or unplanned downtime. Also the secondary system is used for workload balancing purposes to offload query processing from the production system.

Airport business –
HA/DR for luggage management
systems

Customer Sample 4

Business Challenge:

The company is one of the largest telco providers in Germany. They needed support for migrating their customer and billing systems from their mainframe to open systems with a minimum downtime. Also they needed to test the new applications in advance.

Business Value:

Infosphere CDC helped the customer to migrate more than 6 Terabyte customer and billing information with a minimum downtime. They were able to test the new developed application on their new hardware platform in advance with data out of their test systems before finally switching their users to the new infrastructure.

Solution:

Infosphere CDC helped to replicate their data in realtime from their mainframe systems to their new infrastructure.

Large Telco –
Migration from legacy hardware
to open systems

Licence

Infosphere Change Data Capture Per Value Unit / Prozessorabhängig DB Source & Target müssen Lizensiert werden	173,- EURO (PVU)
Infosphere Change Data Capture Subcapacity Licensing	173,- EURO (PVU)
Infosphere Change Data Capture for Oracle Replicator Per Value Unit / Prozessor Prozessorabhängig DB Source & Target müssen Lizensiert werden	173,- EURO (PVU)

Durchschnittliche Projektdauer für CDC Implementierung
ca. 3 – 20 Tage

Stand 01.05.09

Sales Plays for Change Data Capture

■ Change Data Capture

- ist Multiplattform fähig
 - Datenbank : DB2, Oracle, Informix, SQL-Server, Sybase ...
 - Hardware: Intel, p-Series, SUN, HP,
- im Datawarehouse einsetzbar
- Ermöglicht eine Echtzeitreplikation
- Unterstützt Hardwaremigrationen
 - unterbrechungsfrei
- Sorgt für “smoothe” Software Upgrades
 - Ohne Ausfall

■ Neue Ansätze für neue Accounts !

- Oracle DB wird unterstützt
- Oracle Partner kennen CDC nicht
- Viele Tools sind auf ORACLE abgestimmt
- CDC unterstützt das Data Lifecycle Management
 - 1. Migration mit CDC
 - 2. Ständiger Einsatz von CDC bei DB “Moves”



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