IBM System z Forum

System Z Information Integration Capabilities

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Topics

- Data duplication realities
- Information Integration tools & techniques : for LUW & Z
- 5 Facts about Analytics
- Using System Z to reduce data duplication and improve QoS

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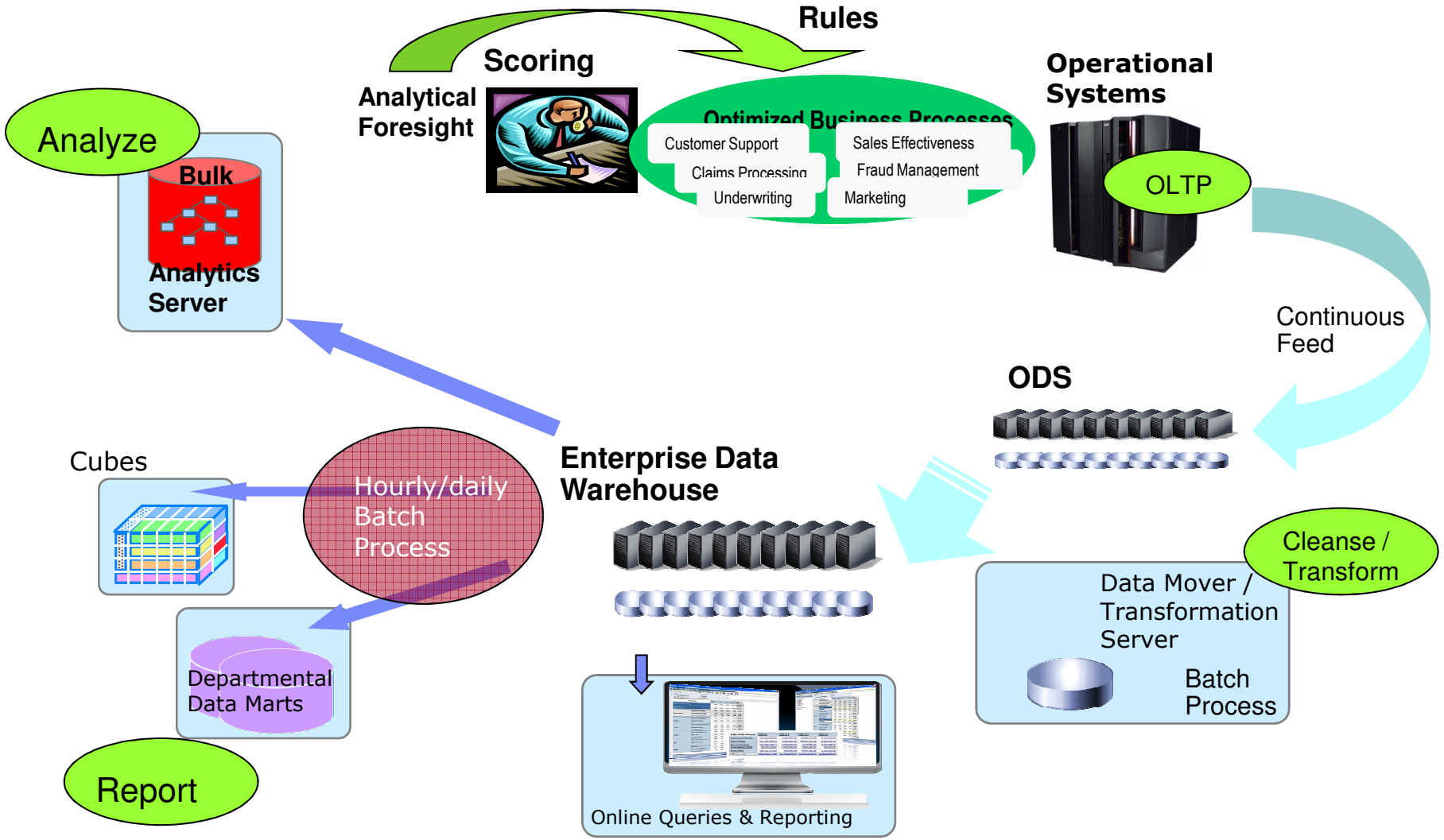
Data Duplication Realities

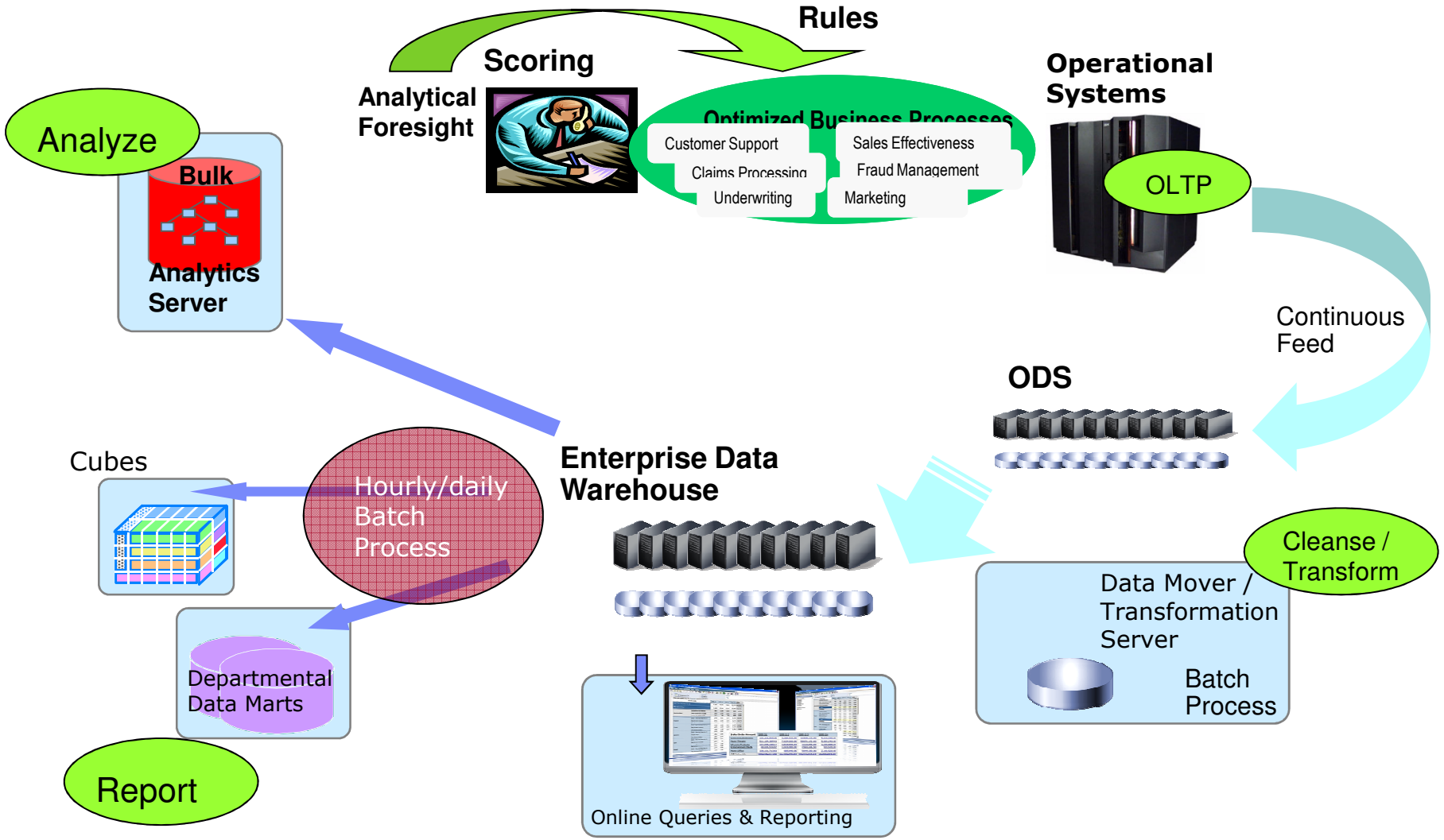
Challenges of Data Duplication

- Latency of Data ?
- Security at all points ?
- Data Governance ?
- Complexity ?
- Cost of Administration ?
- Cost of H/W & S/W ?

Typical Infrastructure Scenario



Typical Infrastructure Scenario



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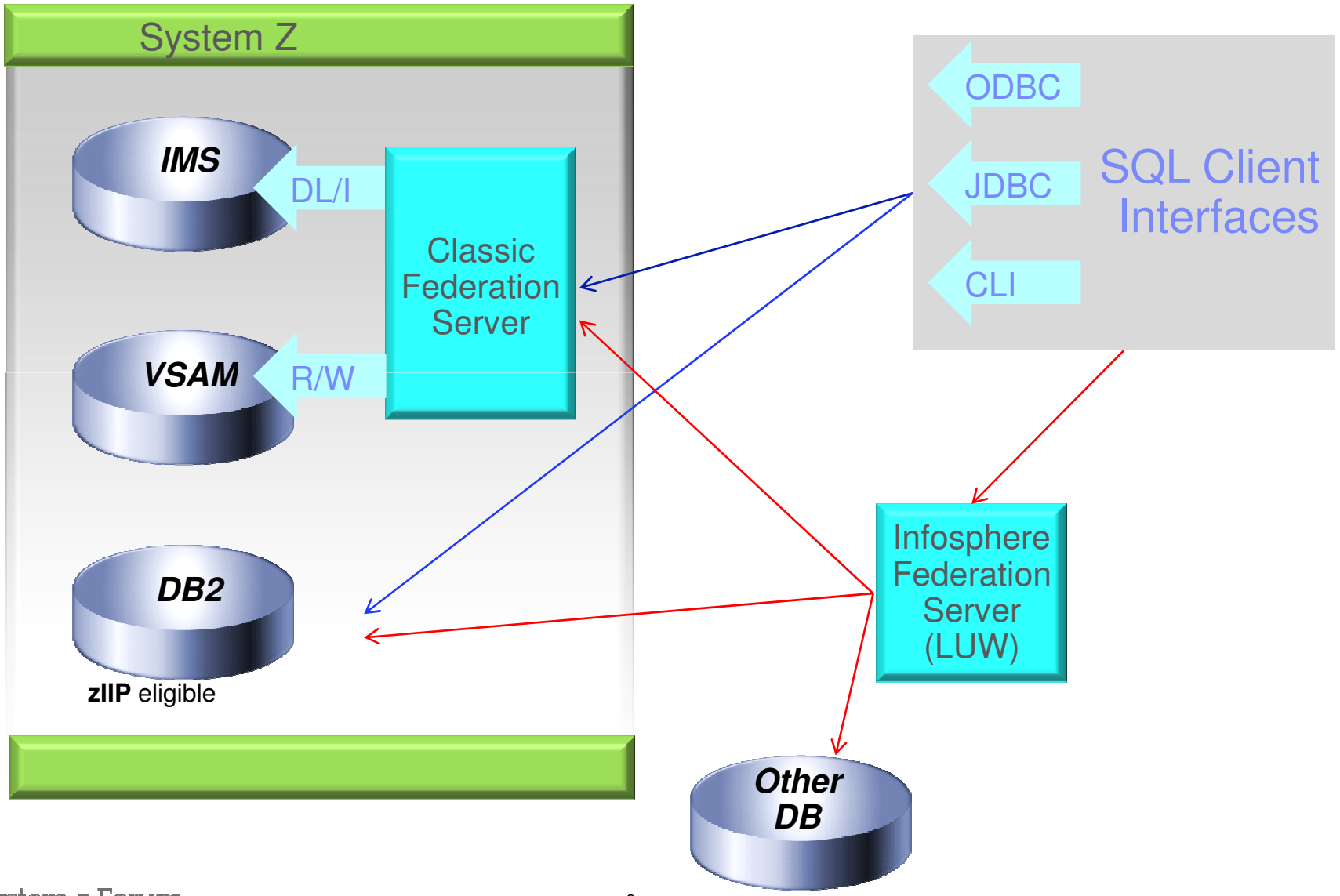
Information Integration Tools & Techniques

- Direct Access / Federation
- Bulk Copy (software / hardware)
- Data Replication
- Event Publishing / Notification
- Transformation (Bulk Data / Streaming Data)

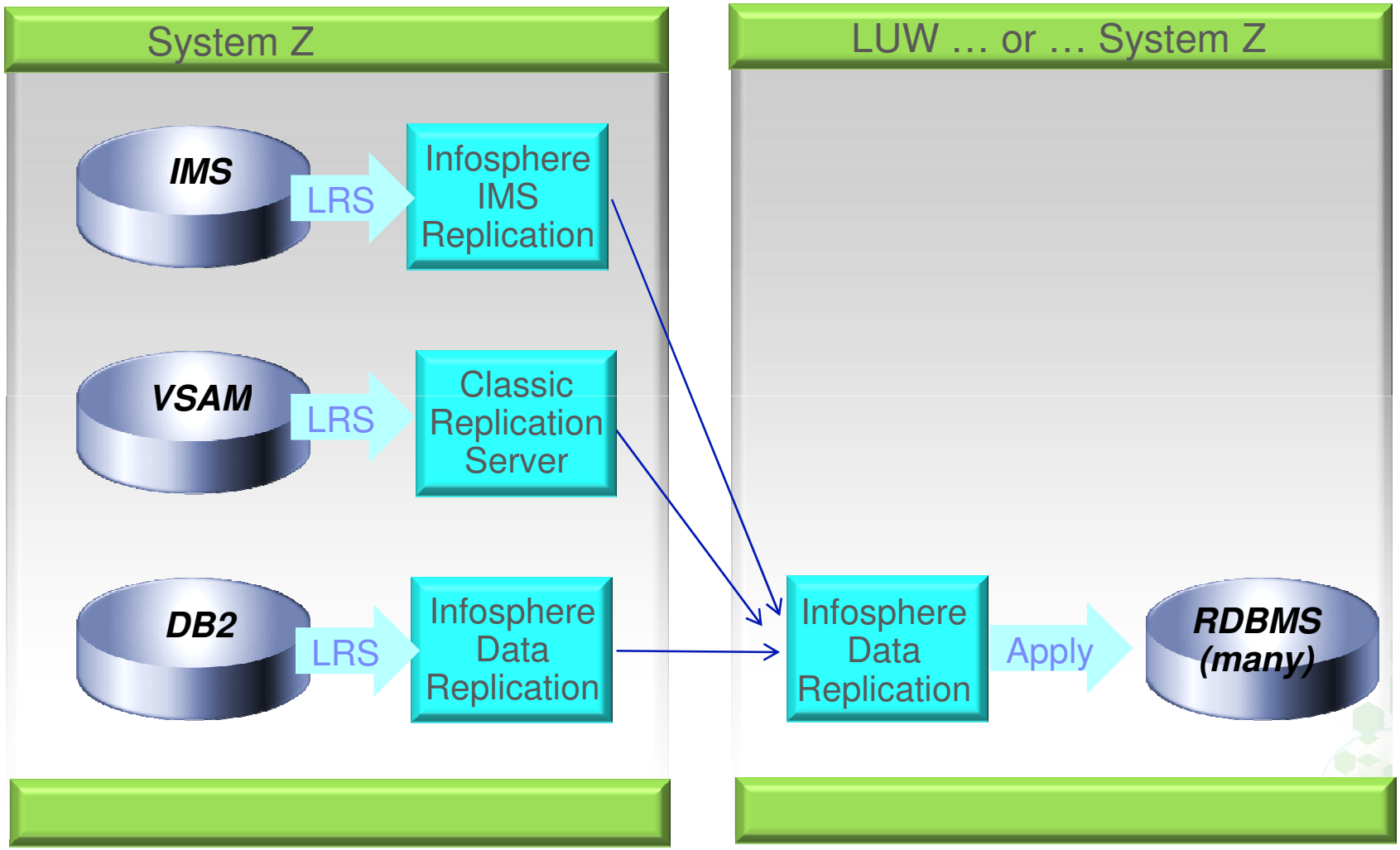
IBM Portfolio of Information Integration Tools (“Infosphere” branding) supports System Z and LUW alike.

- Move data from Z to LUW
- Move data from Z to Z
- Move data from LUW to Z

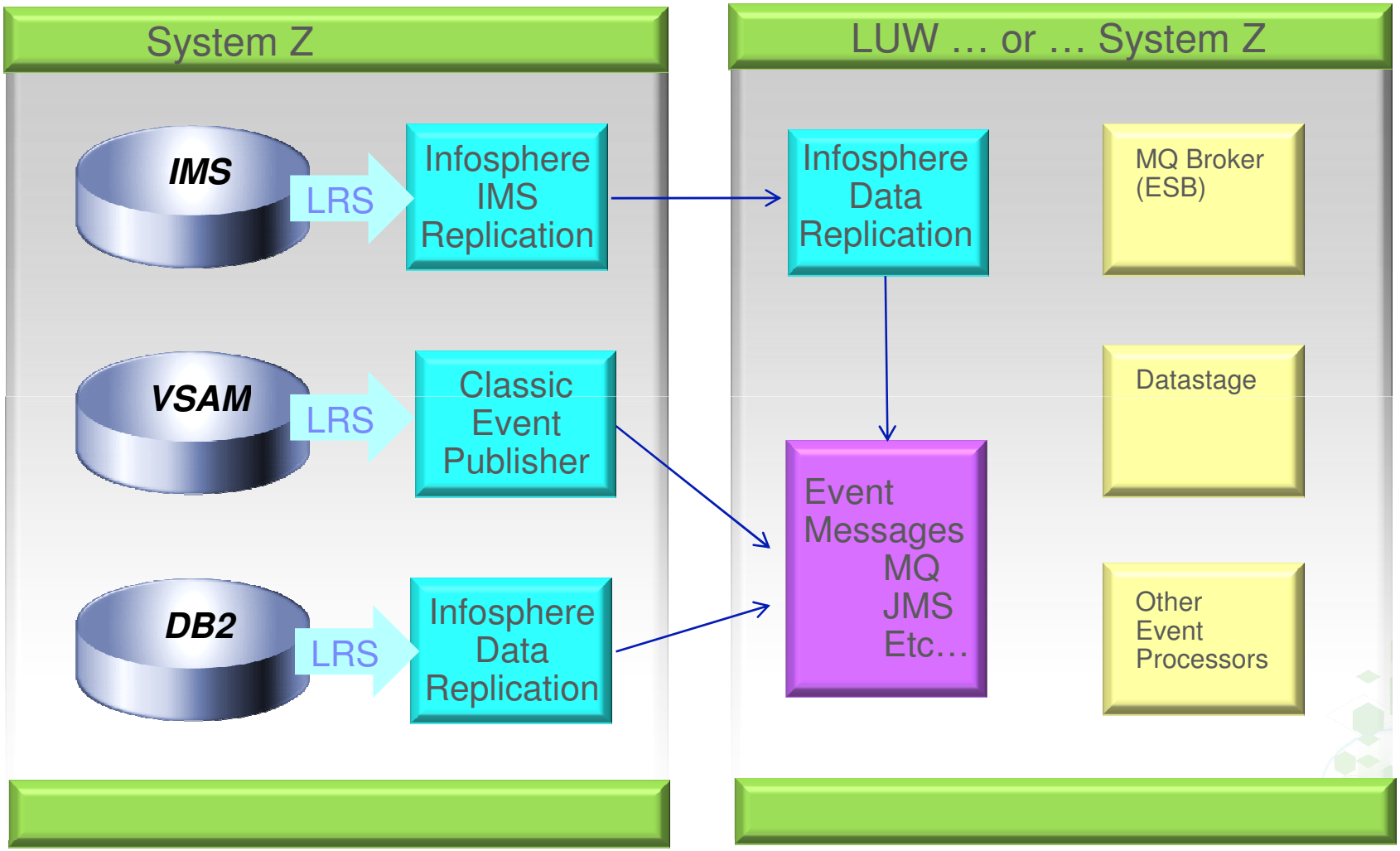
Federation



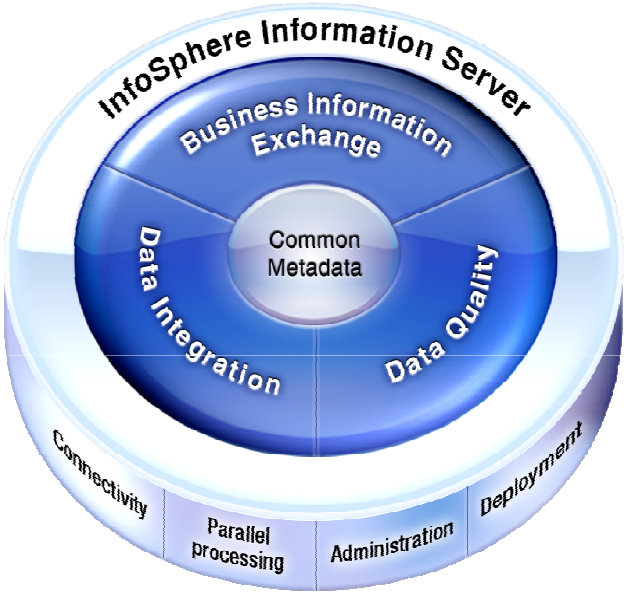
Replication (“SQL” ; “Q” ; “CDC”)



Event Publication



Transformation : IBM Information Server



… includes tools such as

- Infosphere Discovery
- Qualitystage
- Datastage

- LUW (including Linux for Z)

Information Integration

- Tools & Techniques apply equally well (functionally) within System Z Environment
- Tools & Techniques can be more effective within System Z Environment
  - Co-Location
  - Latency
  - Avoid Server Sprawl to provide multiple single-task servers
  - Simplified, Enhanced Security

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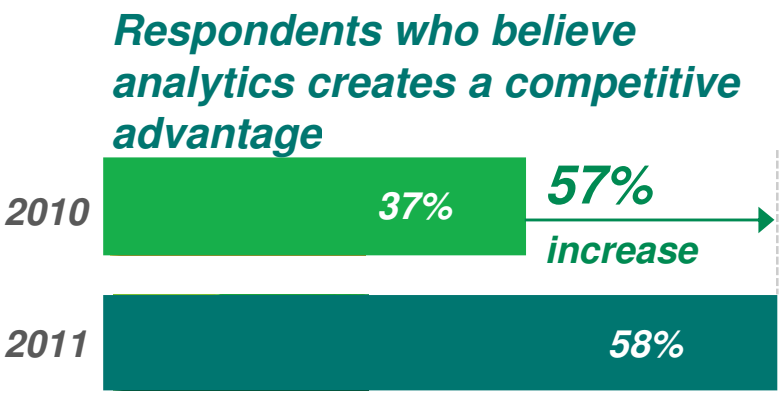
1. Organizations use Analytics to outperform their competition

More organizations are using analytics to create a competitive advantage



Source: The New Intelligent Enterprise, a joint MIT Sloan Management Review and IBM Institute of Business Value analytics research partnership.

And leaders are outperforming their competitors in key financial measures

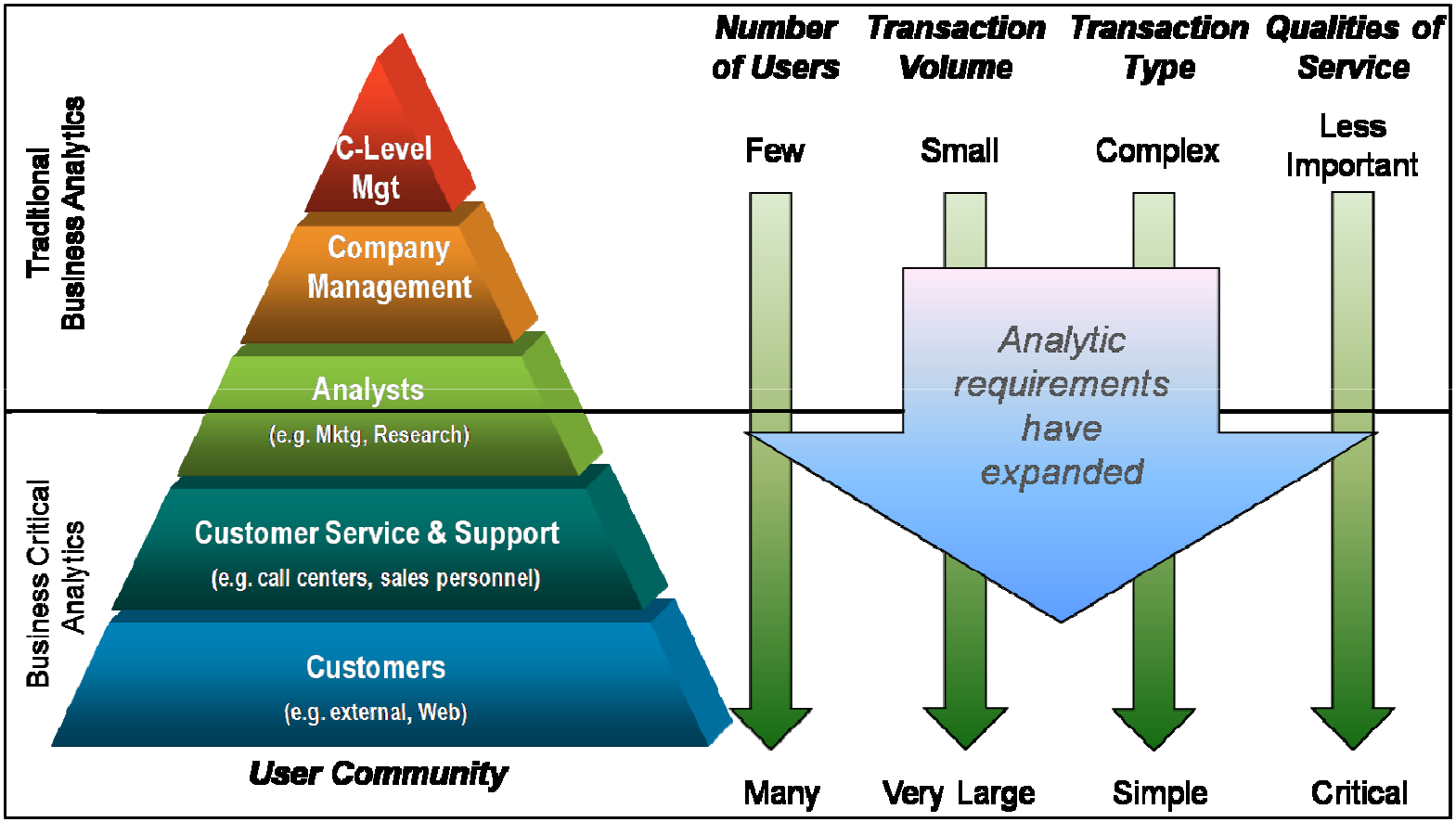
1.6x ***Revenue growth***

2.0x ***EBITDA growth (pre-tax net income growth)***

2.5x ***Stock price appreciation***

Source: Outperforming in a data-rich, hyper-connected world, IBM Center for Applied Insights study conducted in cooperation with the Economist Intelligence Unit and the IBM Institute of Business Value. 2012

2. Integrated Analytic Processes have become business-critical



3. Business-Critical Systems demand low latency, and high qualities of service and performance

- Infrastructure must be scalable, available and reliable
- Data governance and security must be effective
- Analytics must be timely and accurate

4. Spreading data transformation and analytic components across multiple platforms can increase data latency, cost, complexity and governance risk.

Data in

Transactional Data

- *DB2 for z/OS*
- *IMS*
- *VSAM*
- *Non-IBM*

Data Transformation

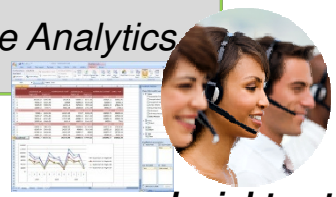
- *Replicate*
- *Integrate*
- *Cleanse*
- *Manage*

Data Warehousing

- *Operational Data Store*
- *Data Mart*
- *Data Warehouse*

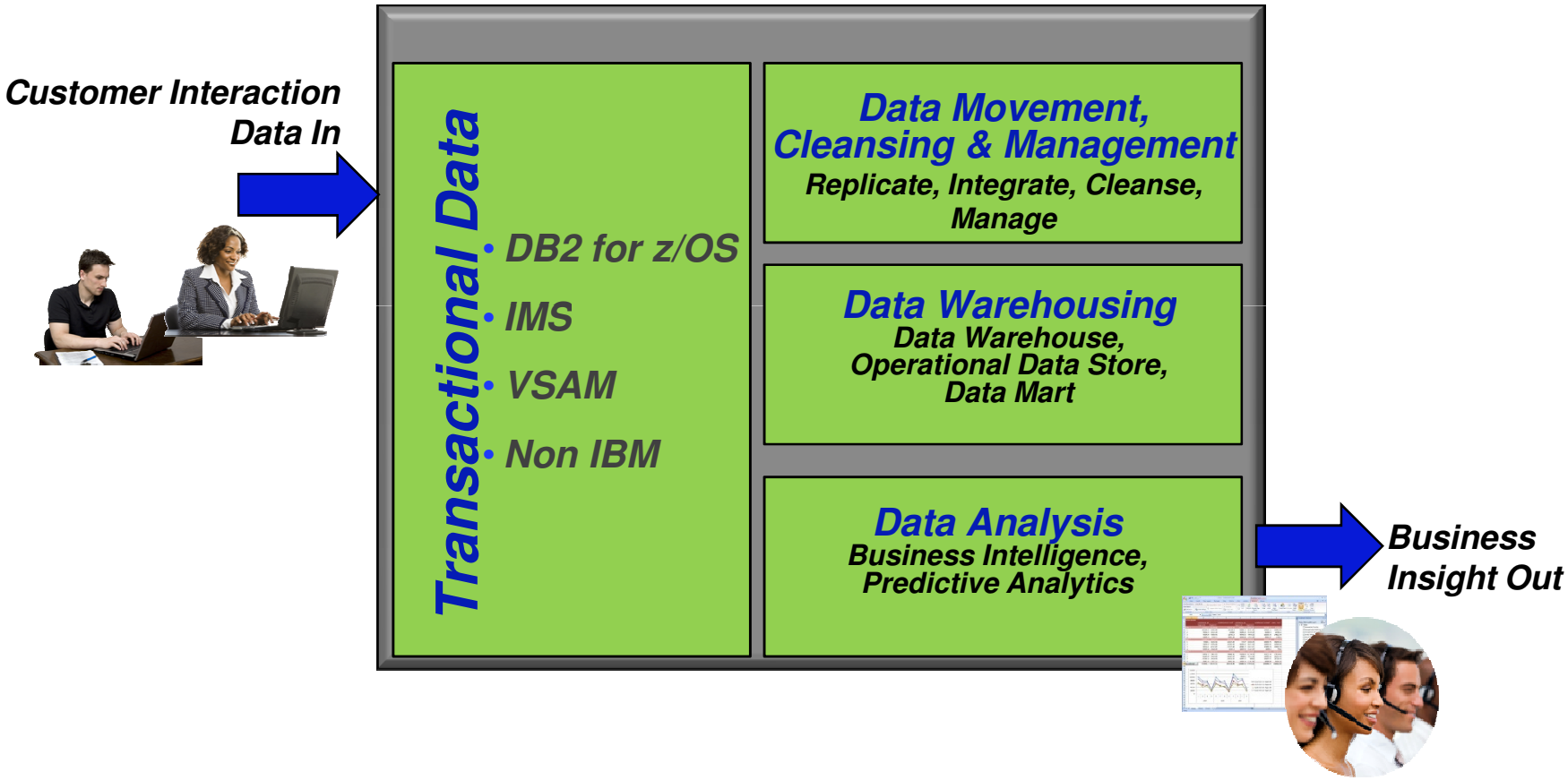
Analytic Tools

- *Business Intelligence*
- *Predictive Analytics*



Insight out

5. Bringing analytic components to where the data originates improves data governance, while minimising data latency, cost and complexity



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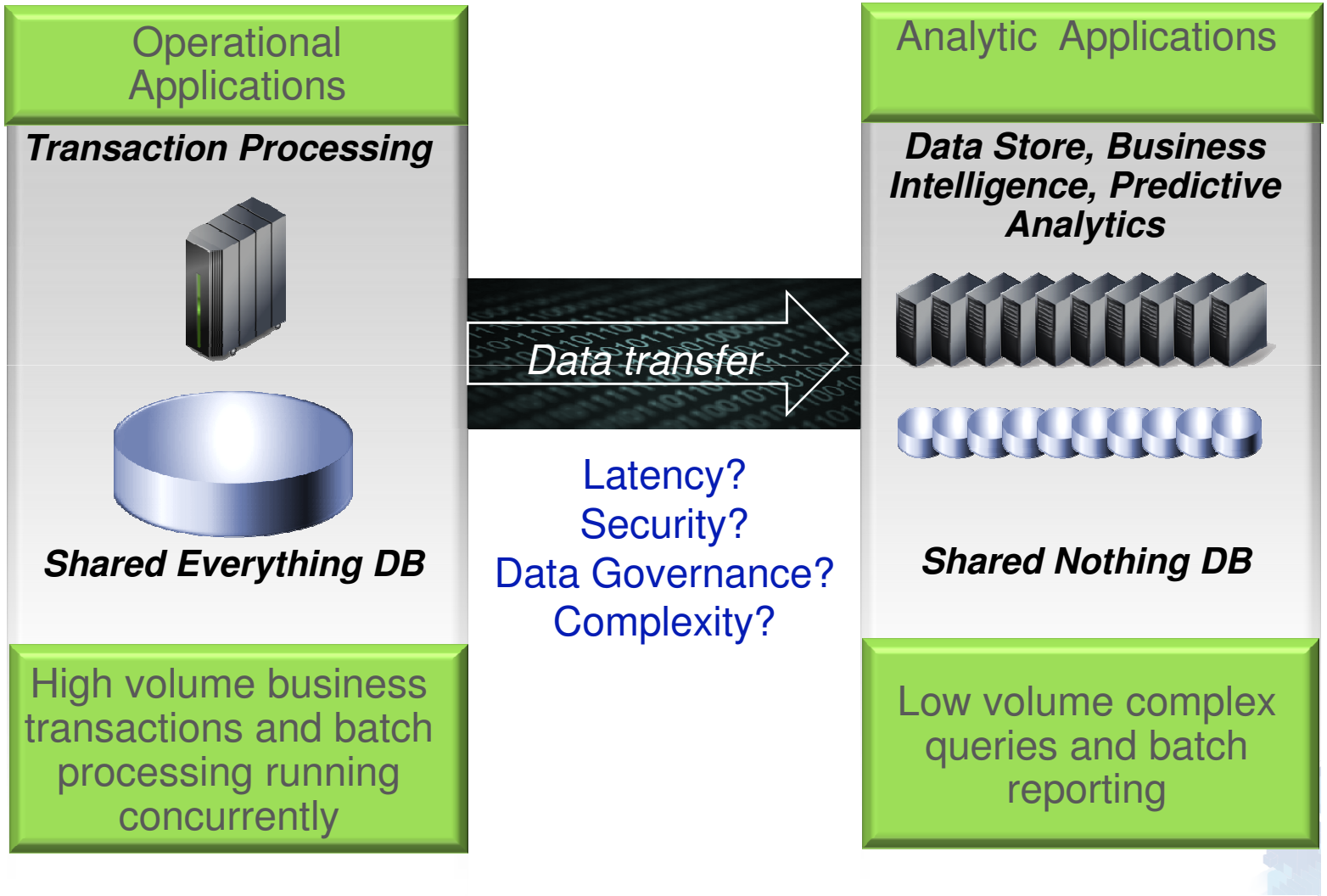
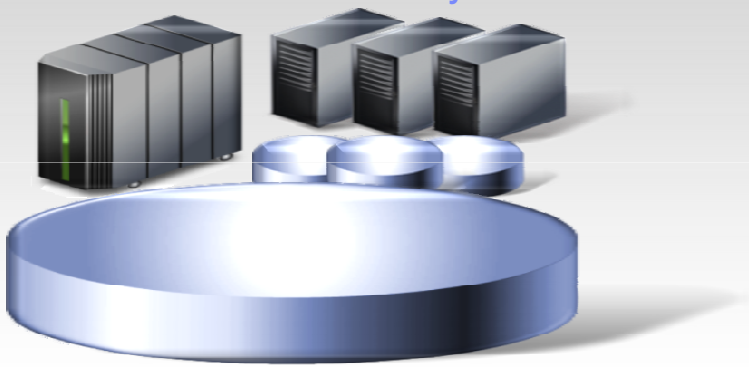
Traditional Approach to Analytics Systems



The Hybrid Vision

Combined Workloads

Transactional Processing, Traditional Analytics & Business Critical Analytics



Hybrid DB

Reduced Latency. Greater Security.
Improved Data Governance. Reduced Complexity.

High volume business transactions and batch reporting running concurrently with complex queries

Key Enabler: IBM DB2 Analytics Accelerator

- **What is it?**
  - A high performance appliance that integrates Netezza technology with zEnterprise technology, to deliver dramatically faster business analytics
- **What does it do?**
  - Accelerates complex queries, up to 2000x faster
  - Lowers the cost of storing, managing and processing historical data
  - Minimizes latency
  - Improves security and reduces risk
  - Complements existing investments

Start with Quick ROI ; Then Exploit Operational Analytics

1. Enterprise OLTP Systems

Usually includes query & reporting Workloads too.

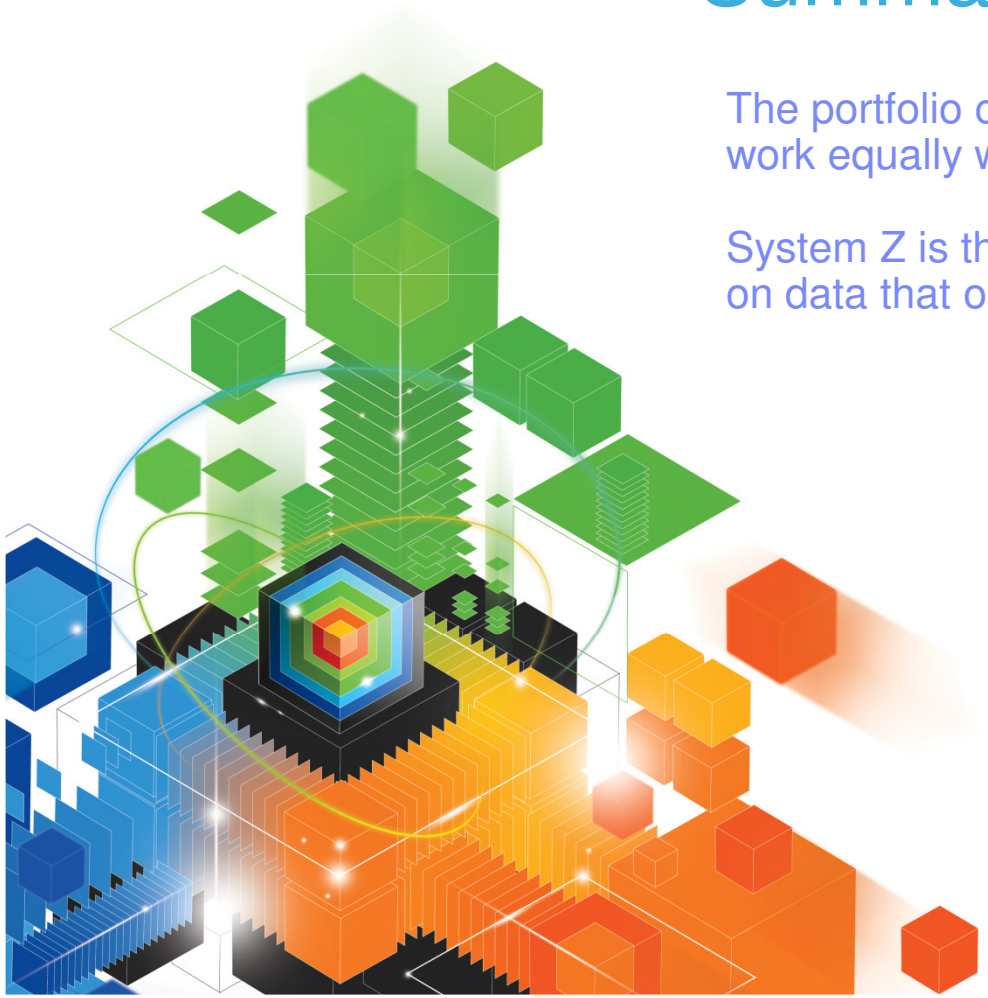
2. Evaluate IDAA cost/benefit on Existing OLTP systems

- Accelerated Queries - offloaded
- MLC capacity usage savings
- Massive performance gains
- Increase available capacity

3. Identify Operation Analytics Requirements to exploit the IDAA

- Where low data latency is crucial
- Where analytics is required at the point of customer interaction

Summary



The portfolio of Information Integration tools and techniques work equally well (or better) with System Z as a target.

System Z is the best platform for operational analytics on data that originates on System Z.

Thank You