Building Mainframe Information Services with IBM Information Server for System z

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Abstract

- This session will focus on techniques for service enabling mainframe data using various components of the IBM Information Server platform. WebSphere Information Services Director, WebSphere DataStage, WebSphere QualityStage and WebSphere Classic Federation will all be discussed in the context of creating “information services.”

Presentation Goals:

- Learn how mainframe data integration can be utilized within a Service Oriented Architecture to address your business and IT challenges as well as how components of IBM’s Information Server technologies can be used to dramatically simplify and accelerate the construction of these services.

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Agenda

- Introduction:
  – Information as a Service
- IBM Information Server
  – Delivering Information that you can trust:
    - Where it is needed
    - When it is needed
    - How it is needed
- WebSphere Information Services Director
  – Enabling information use and reuse in a SOA environment
    - Basic “access”
    - Transformed information
    - Cleansed information
- Wrap-Up
  – IBM Information Server for System z deployment

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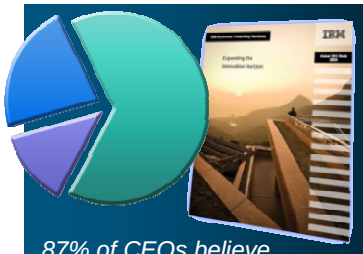
Changing Corporate View of Information Architecture

- **Information is the key to Business Innovation**
  – Organizations highly effective at driving information integration are five times more likely to drive value creation
  – Information architecture can’t exist in a vacuum – it needs to be tied to enterprise architecture



*87% of CEOs believe fundamental **change** is required in next two years to drive innovation*

Over 60% of CEOs believe their organizations need to do a better job leveraging information

Source: 2006 IBM Global CEO Survey

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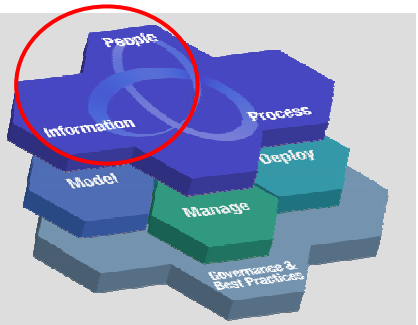
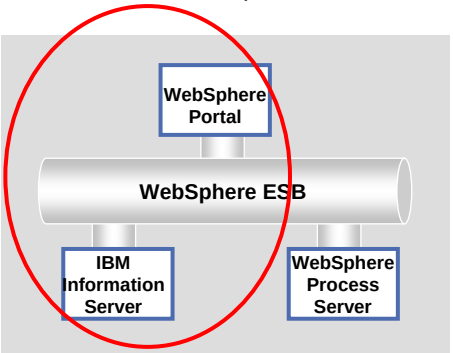
Information as a Service is key to … information reuse and flexibility

Getting the right data quickly and consistently for all applications continues to be a key challenge for many enterprises. ***Forrester, January 2006***

You will waste your investment in SOA unless you have enterprise information that SOA can exploit. ***Gartner, March 2005***





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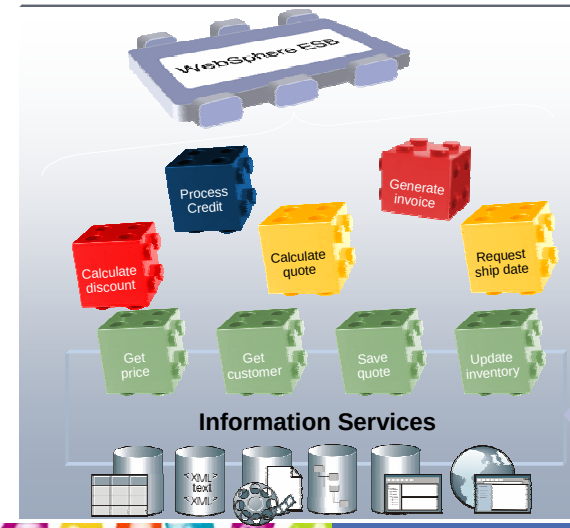
How Does Information Fit into an SOA?



Information as a service makes information more accessible, consistent, and flexible

Publishing consistent, reusable services for information that make it easier for processes to get the information they need from across a heterogeneous landscape.

- Select data from source 1
- Select data from source 2
- Match and link records
- Transform data to target

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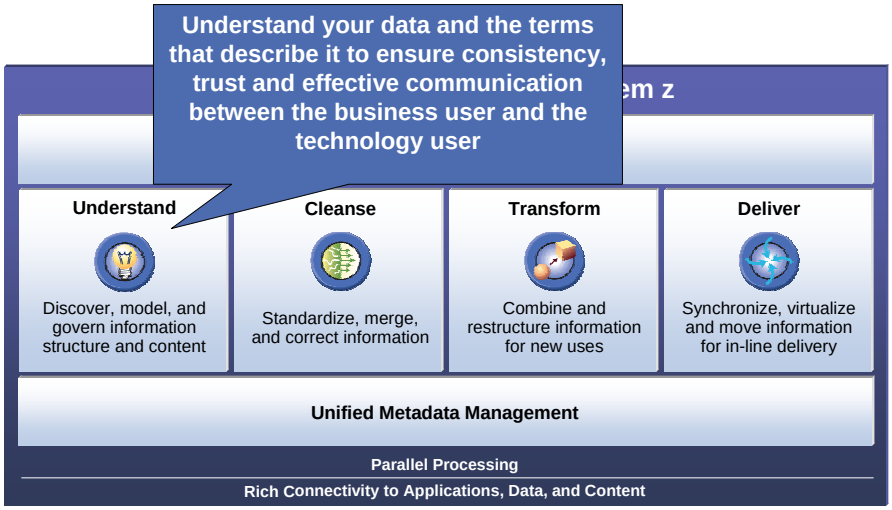
IBM Information Server for System z

Delivering information you can trust



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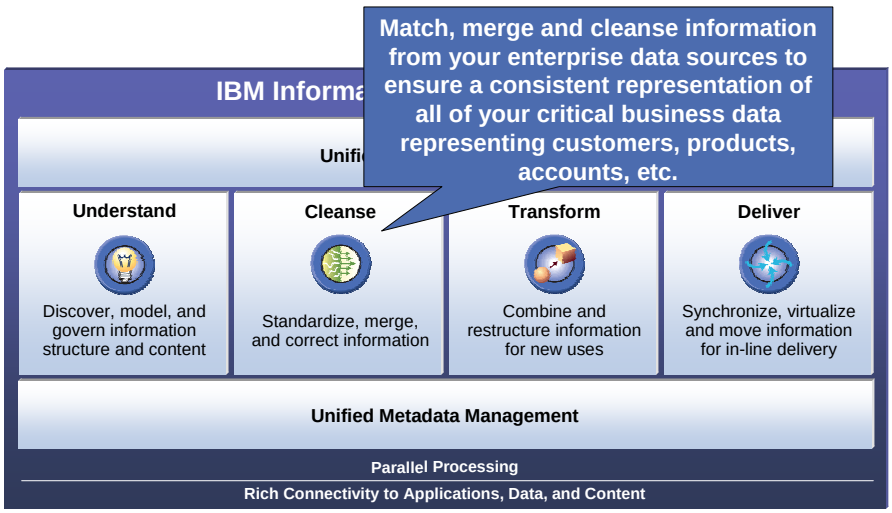
Delivering information you can trust



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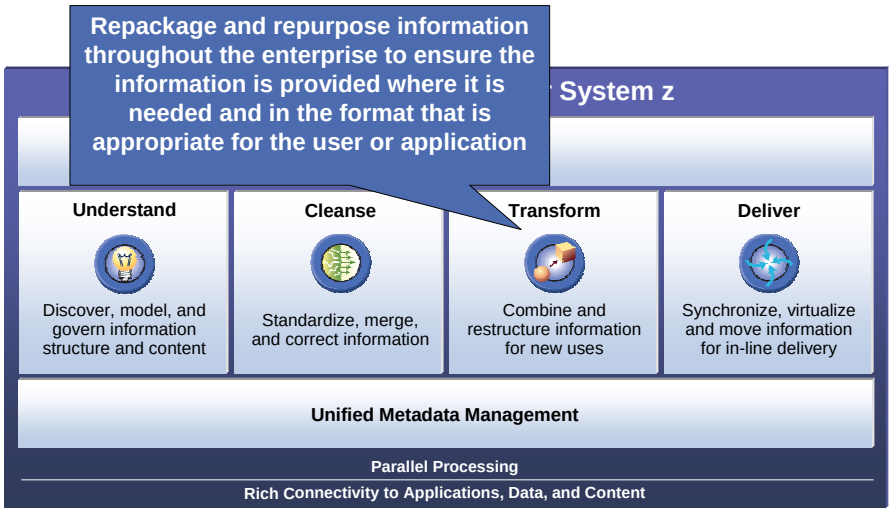

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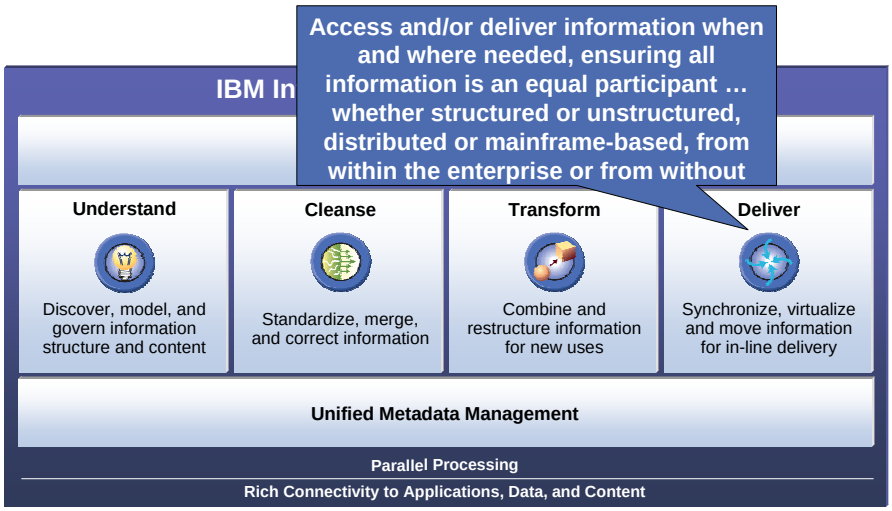
Delivering information you can trust



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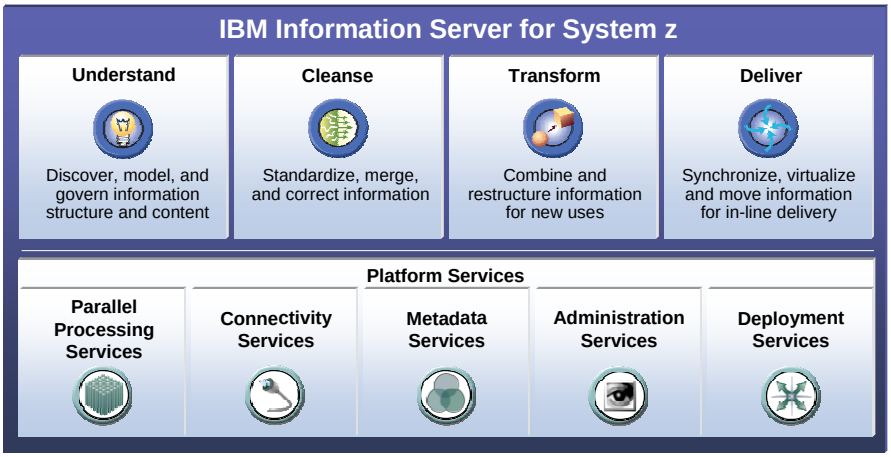
The IBM Information Server

A Platform, not just a collection of products



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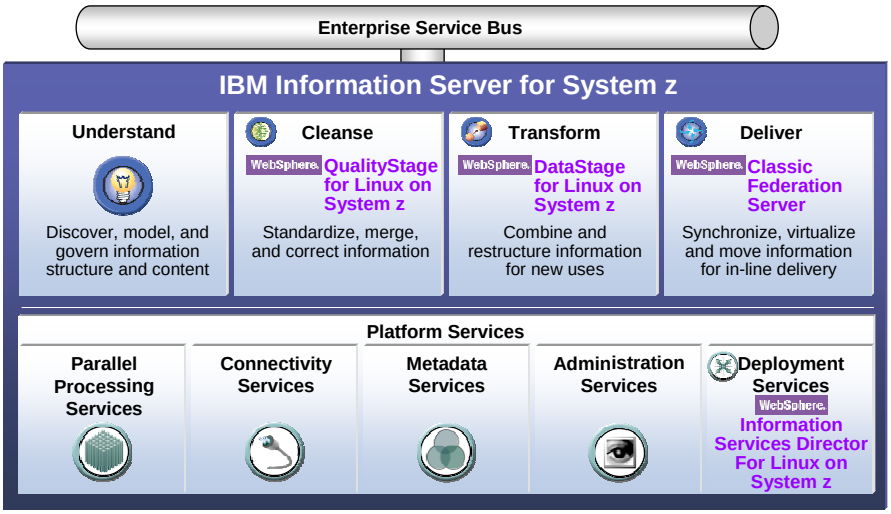
IBM Information Server for System z and SOA

Trusted information for dynamic business optimization



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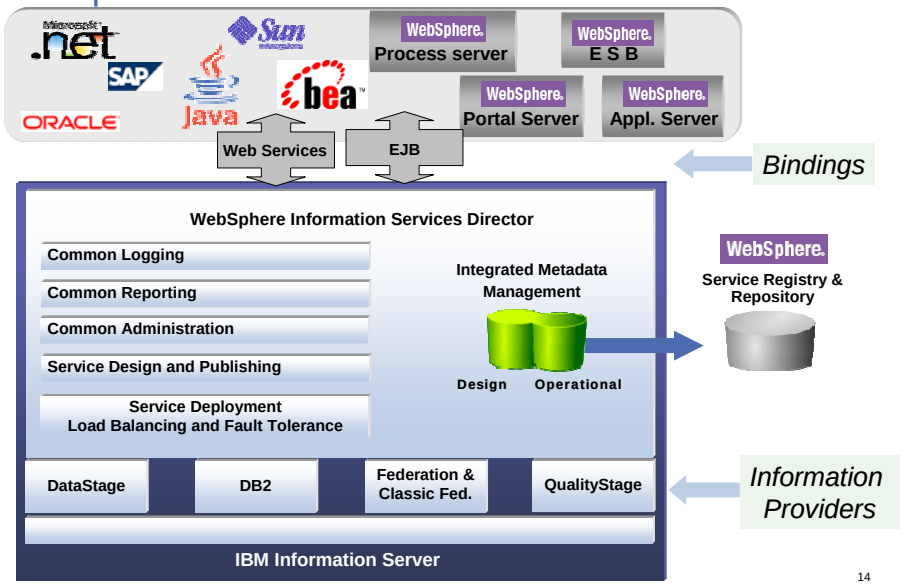
WebSphere Information Services Director 8.01



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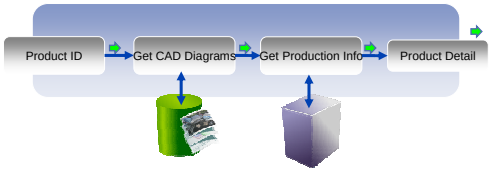
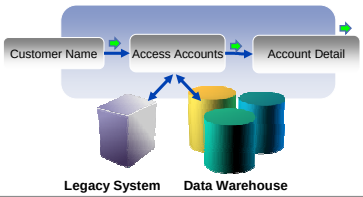
WISD Service Providers

Data Access Services – DB2



Federation Services - WebSphere Federation Server
WebSphere Classic Federation Server



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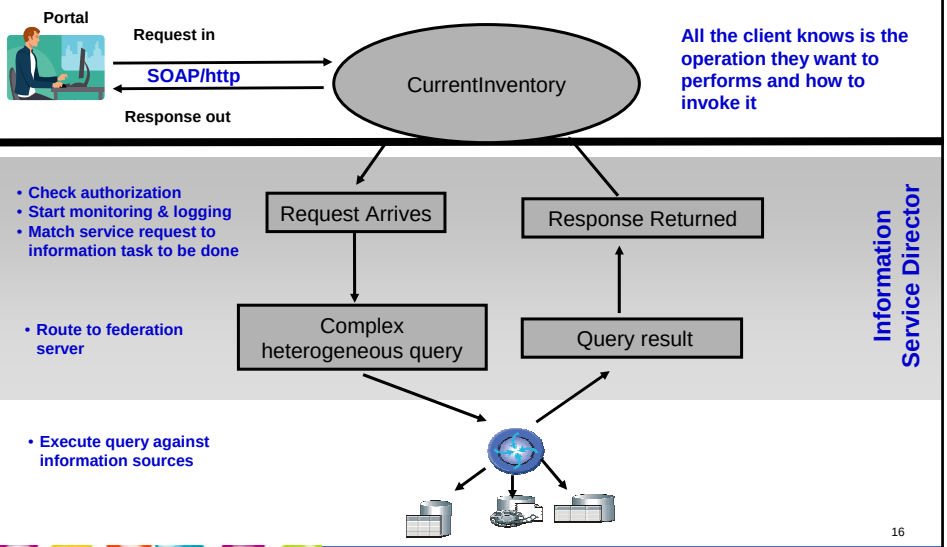
Service-enabling information tasks



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Service-Enabling Mainframe Data

Case Study – Finance, Regulatory Compliance

Challenges:

- Improve risk management across all member institutions
- Meet Basel II compliance deadline
- Access information:
  - in 23 different retail systems
  - from over 2500 branch offices

Solution:

WebSphere Information Integration Platform providing single point access and control of risk-bearing information across many different mainframe systems in different technologies and formats.

Result:

- Enhanced risk management and increased efficiency of data collection for Base II required data
- Ability to view data in operational systems spread across the enterprise including third party information without disrupting retail system

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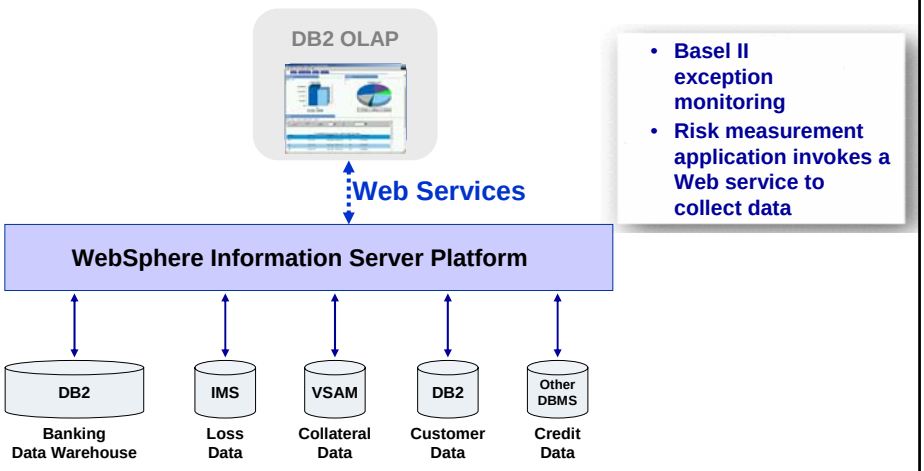
Service-Enabling Mainframe Data :

Case Study – Finance, Regulatory Compliance



- **Basel II exception monitoring**
- **Risk measurement application invokes a Web service to collect data**

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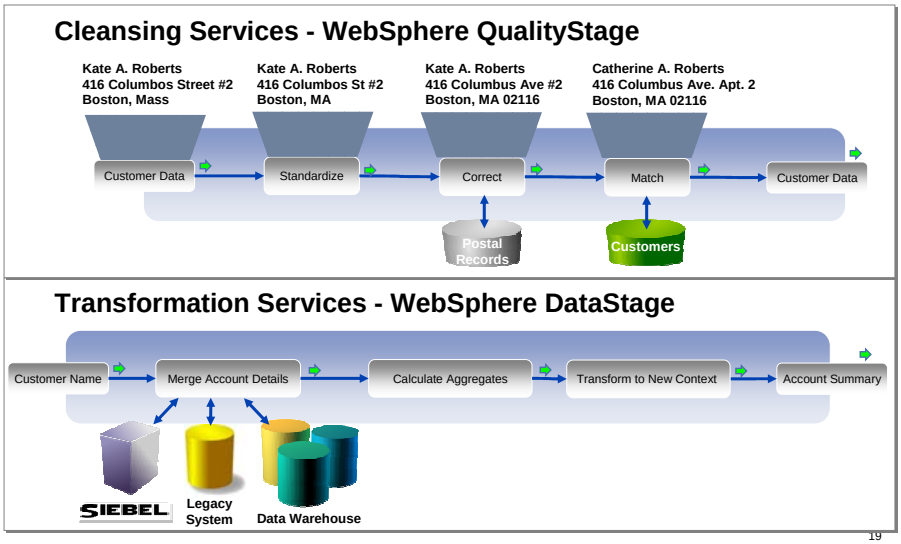
WISD Service Providers



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Service-Enabling Mainframe Data

Case Study – US Manufacturer of Recreational Equipment

- Challenges:
  - Complex inventory environment is dependent on Japanese parent for parts – on-the-boat, in-port, held-in-port, in-US-warehouse, …
  - Manual review of reports needed to provide single view of inventory to Finance, Manufacturing, Sales, etc. --- can take up to 3 weeks!
  - Maintaining excessive inventory (high cost)
  - Missing product delivery dates (lost revenue)
- **Solution:**
  1. Surface inventory "delays" as services
  2. Inventory services feed downstream systems (Finance, SCM, …)
  3. Monitoring applications leverage services
- **Result:**
  - Reduced inventory overhead
  - More efficient use of inventory, accelerating delivery of customer orders
  - Consistent, accurate, up-to-date view of inventory for Finance
  - Eliminated manual reconciliation – reduced manpower

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Service-Enabling Mainframe Data

Case Study – Insurance

- Challenges:
  - Chronic shortfalls in productivity and customer satisfaction targets
    - Difficult, if not impossible to get correct customer-level information
    - Detailed information available at contract level only
    - Frequent conflicting information at group level
    - Major cause of billing errors and disputes
- **Solution:**
  1. Best-of-breed data attributes identified and surfaced via Services
  2. Information silos communicate with new "enterprise" applications
  3. Complexity of IT environment is "hidden" from business users
- **Result:**
  - Enterprise service applications quickly delivered without disrupting existing functional "silo" environments
  - Up-to-date information reducing errors, disputes and improving service levels
  - Productivity and customer satisfaction steadily improving

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Inside IBM Information Server for System z

- Provides a central control point for information services
  - Provides shared metadata, logging, security, services registry, and configuration
  - Allows all information assets to be controlled centrally
- Provides trusted information as a service
  - Obtains a complete view of information across a diverse landscape
  - Enables consistent transformation and data cleansing
  - Provides information lineage and linkage to business semantics
- Provides flexibility & reduces cost
  - Allows information to be tailored to the purpose
  - Allows sources to change without disrupting processes
  - Provides multiple options for how information is accessed
- Saves time
  - Fosters reuse in the information access layer

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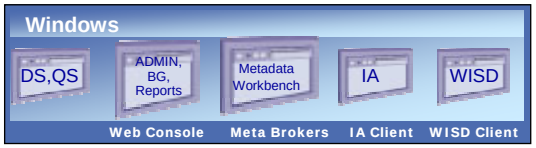
IBM Information Server for System z



Roles-based GUI Design Tools work the way "you" do

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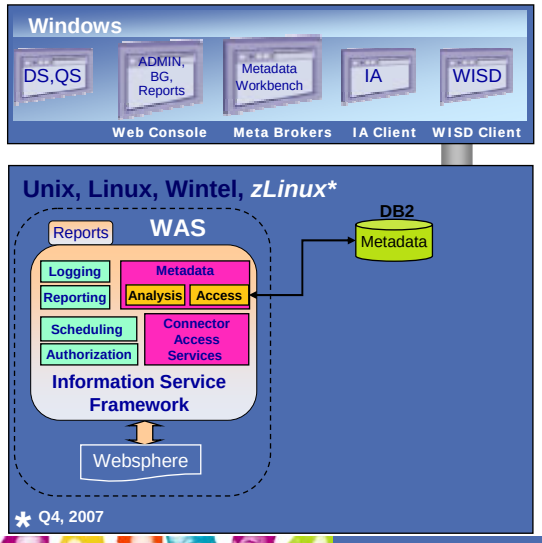
IBM Information Server for System z



- **Common reusable services** framework leverages the power of a SOA environment
- **Meta data repository** promotes:
  - reuse
  - compliance to standards
  - visual lineage
  - impact analysis

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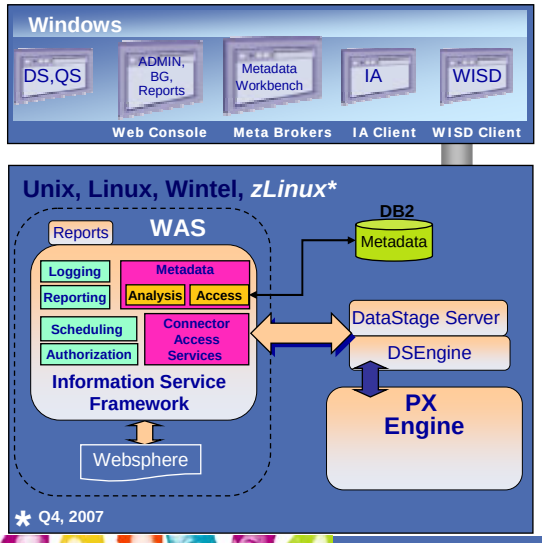
IBM Information Server for System z



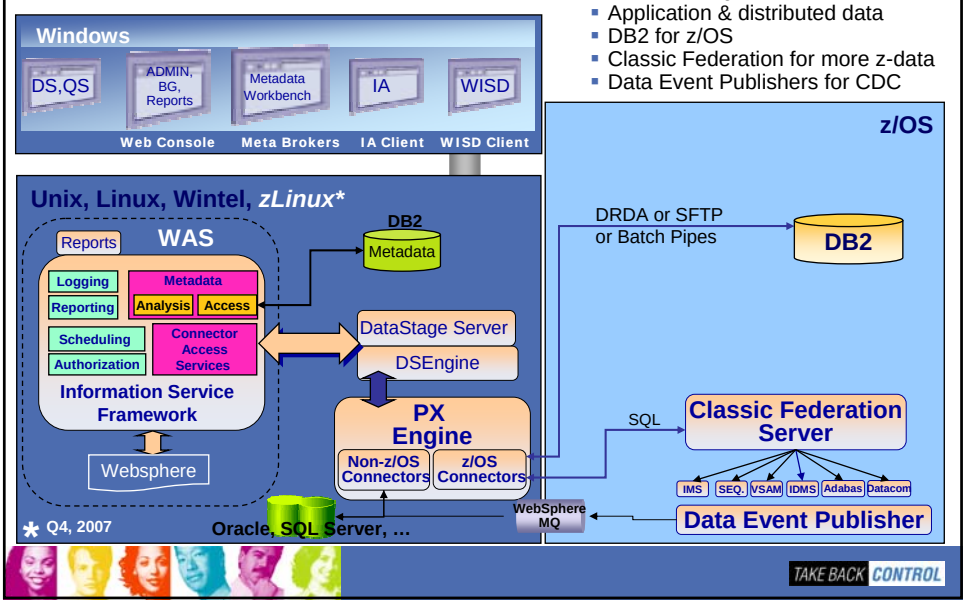
New Linux for z deployment option

- Robust, parallel processing
- Hipersocket connectivity to z data
- Full Information Server suite: QualityStage, Information Analyzer…
- Minimal impact on z/OS costs: Leverages IFLs and zIIPs

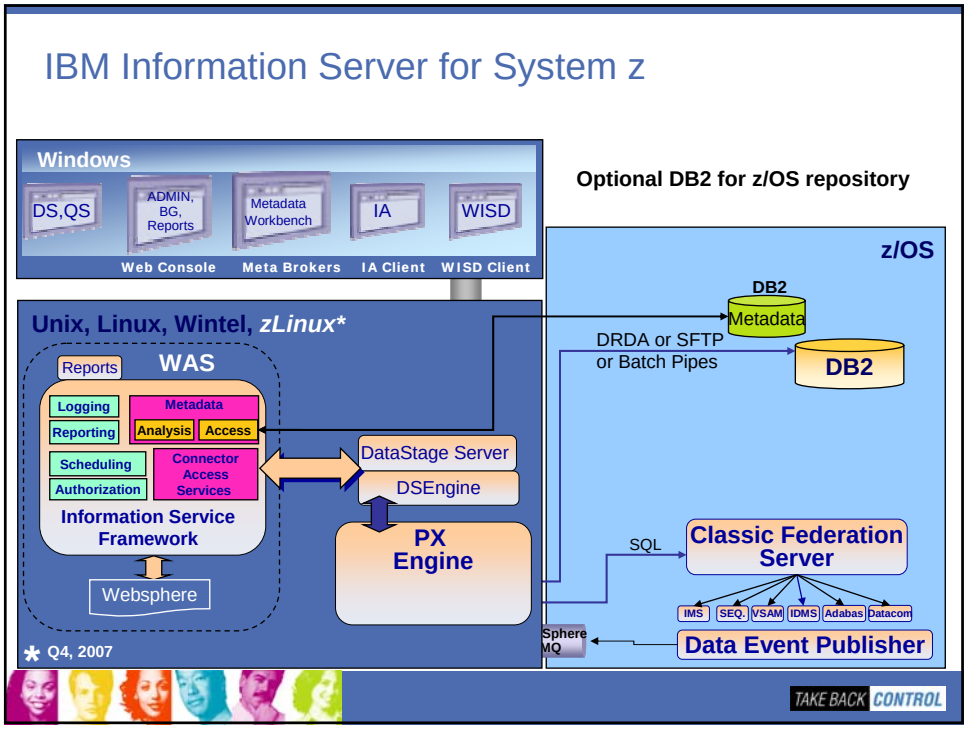
IBM Information Server for System z

Rich connectivity with:

- Application & distributed data
- DB2 for z/OS
- Classic Federation for more z-data
- Data Event Publishers for CDC



IBM Information Server for System z



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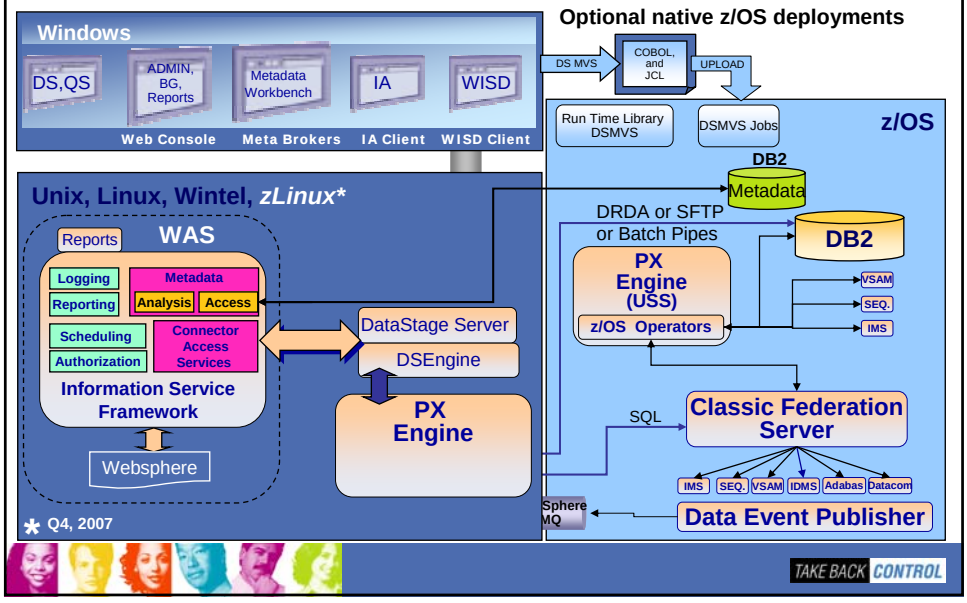

IBM Information Server on System z

Benefits of a hybrid architecture that leverages zLinux

- Significant cost savings:
  - MIPs charged at IFL rate … NOT z/OS rate
  - Minimizes impact on z/OS MIPs
    All Job Processing is on zLinux, except the z/OS data access
  - DB2 access qualifies for zIIP specialty engine
  - Minimizes impact on other z/OS software costs
- High performance z data connectivity:
  - Batch Pipes for DB2 load, DRDA to DB2 over hipersockets
  - SQL to Classic over hipersockets
  - Integration with Data Event Publishers for changed-data-capture
- Seamless integration with other Information Server platforms
  - Same operational architecture and meta data Repository
  - Eliminates deployment issues
  - Maintains value of DataStage for z/OS investments

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