IBM Software Group

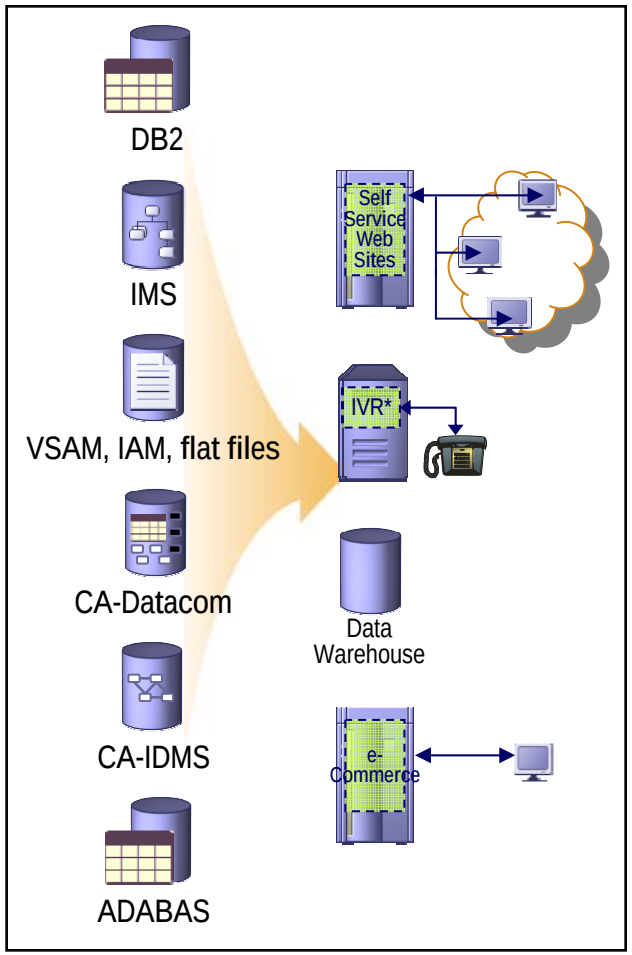
Maximize the Value of Your z Data … while Minimizing Cost

ON DEMAND BUSINESS

Challenges you face every day

- New applications on diverse platforms drive integration demands
  How do you reuse critical "z" operational data on these platforms?
- Mergers & acquisitions and business intelligence drive consolidation
  How do you manage complex transformations to rationalize diversity?
- A shortage of mainframe skills is leading to workload backlogs.
  Can you reduce dependence on mainframe skills?
- "Data and content volumes are expected to increase by a factor of 10 during the next five years" Gartner, November 2005
  How will you deal with these growing volumes?

"z" Data is Mission Critical



Over 60% of operation data is sourced from System z

Why is system z data delivery an issue?

- Proprietary databases – multiple, complex APIs
- Dearth of skills – scarce and becoming more costly
- Billions of lines of mainframe code – cannot migrate
- Integration with modern initiatives not native to this data

What are you doing to meet these challenges?

- Hand-code – COBOL/PLI programs for every data need
  - Bottleneck for new initiatives … slows everything down
  - Dependence on unique skills … proprietary API experts
- Give every new initiative a unique "copy"
  - Latency errors
  - Synchronization challenges
  - Quality issues

Why is z data delivery so difficult?

- Data structures are complex
  - Recurring data, mainframe unique data types
  - Hierarchies, networks and file structures
- Experienced development resources may be in short supply
  - Your java hot shots have no idea how to access IMS
  - Automation is limited
- Users want up-to-the-minute information now
  - Yesterday's data is no longer "good enough"
  - Evolving delivery models
- Different users need the same z/OS data for different purposes
  - Significant investment to repackage and repurpose data
  - Repackaged data must be synchronized with source(s)

Challenge : How do you reuse critical "z" data?

Approaches

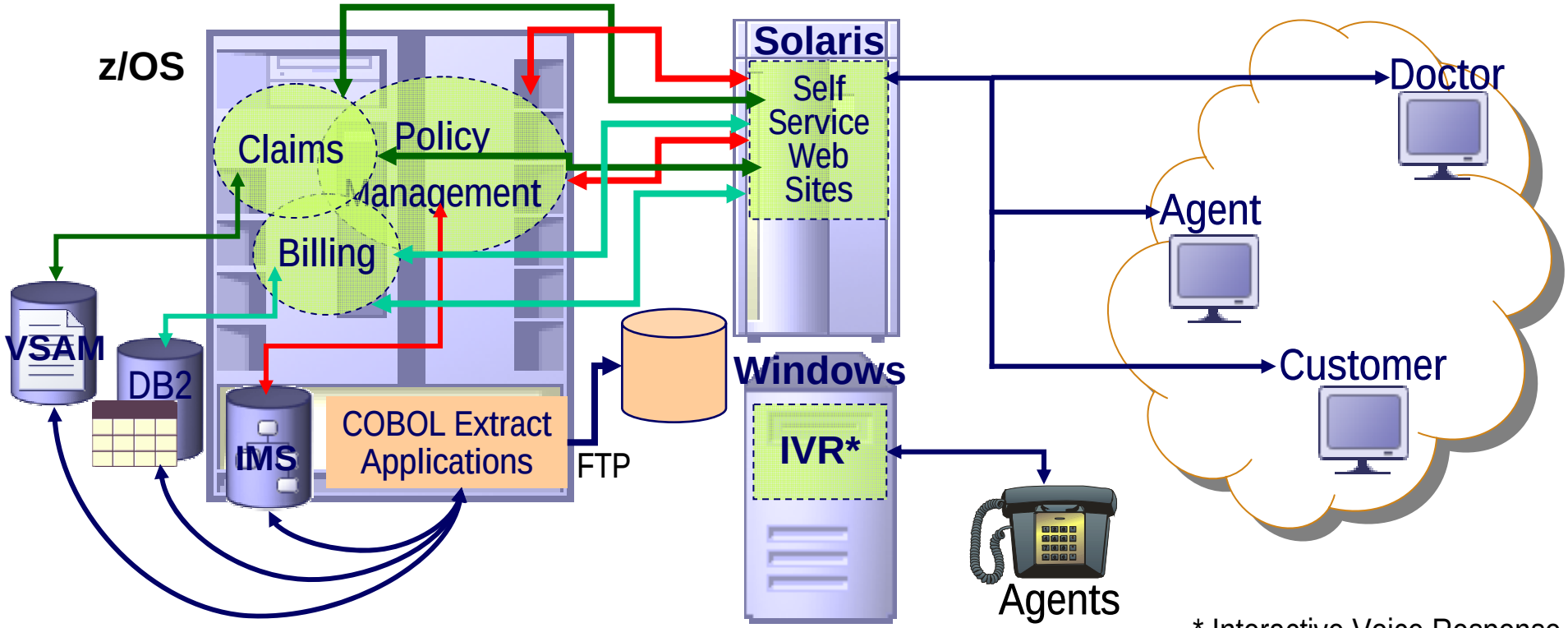
- Get at the data through the transactions
- Copy the data
- Code your way out of the problem

Add details here

The pain associated with “traditional” implementations
an example: Self Service Insurance Management

Traditional Approaches are too costly, too time consuming and maintenance heavy!

- Copy the data to Oracle ……. $2M for hardware and software
- Connect through transactions…. 10,000 man hours per system with little reusability

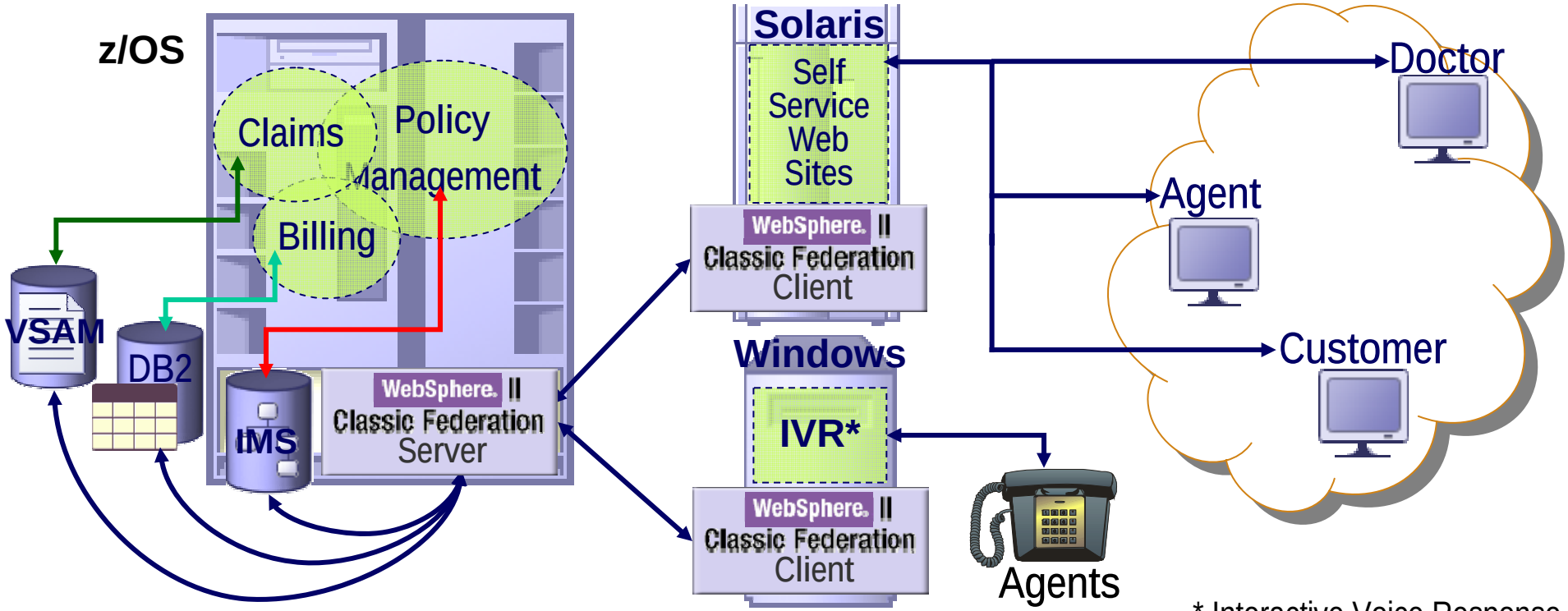


Self Service Using Virtualization

A fraction of the cost and a fraction of the time

Provide up-to-the-minute policy, claims and accounting information

- Connect interactive voice response (IVR) system to IMS, VSAM & DB2… $250K
- Connect operational data with self-service Web sites… 200 man-hours per system



Virtualization – Real time access without the code

- Map data to relational constructs
- Reuse existing data definitions
- Eliminate mainframe coding

Accelerating Delivery of Robust Self Service at a Large Insurance Carrier

Challenge

- Provide information about claims and accounts to customers and agents through both web site and interactive voice (phone) response
- Operational data is in IMS, VSAM files and DB2 on z/OS
- Voice response system on Windows
- Self-service Web sites on WebSphere Application Server on Solaris

Solution

- WebSphere Information Integration Classic Federation for connecting both voice response and web with key information

Business benefits

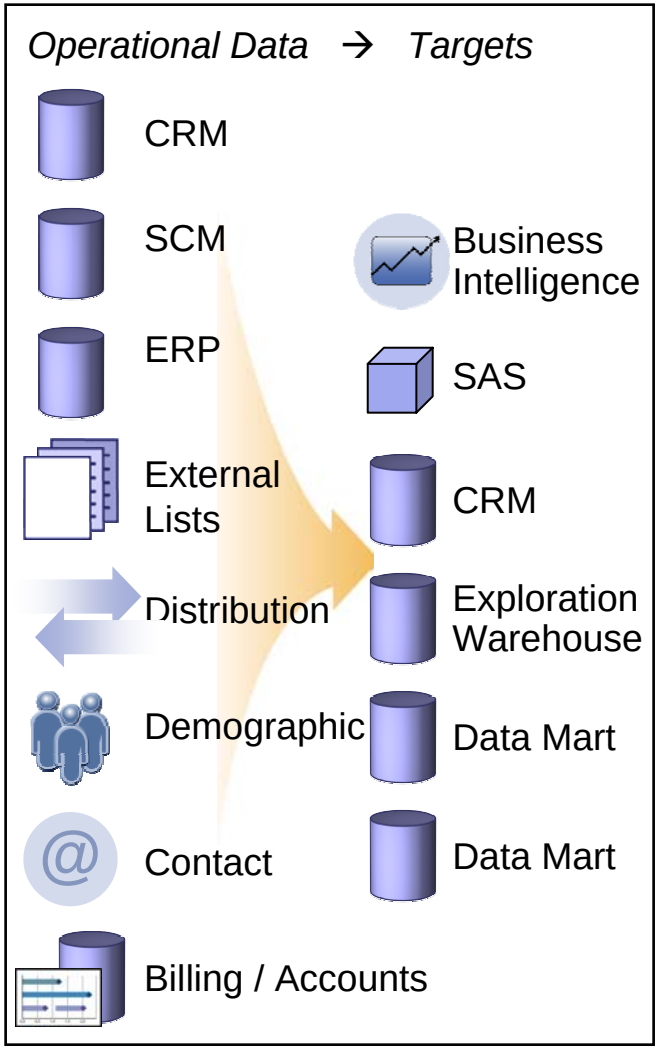
- Reduced resources: 200 hours per application vs 10,000 needed to integrate the IMS transactions
- Reduced software costs: $250,000 vs $2,000,000 needed to copy the data to a RDBMS
- Up-to-the-second data provided to the self-service systems, for increased customer satisfaction

Technology benefits

- Virtualization provides desired results by accessing data in place
- IVR and Web development tools
  - Discover meta data
  - Generate SQL commands

Challenge : How do you manage transformation complexity?

Transformation Makes Data Usable by Many Audiences



Operational z data plays a critical role in:

- Business Intelligence
- MDM and CDI
- Packaged applications

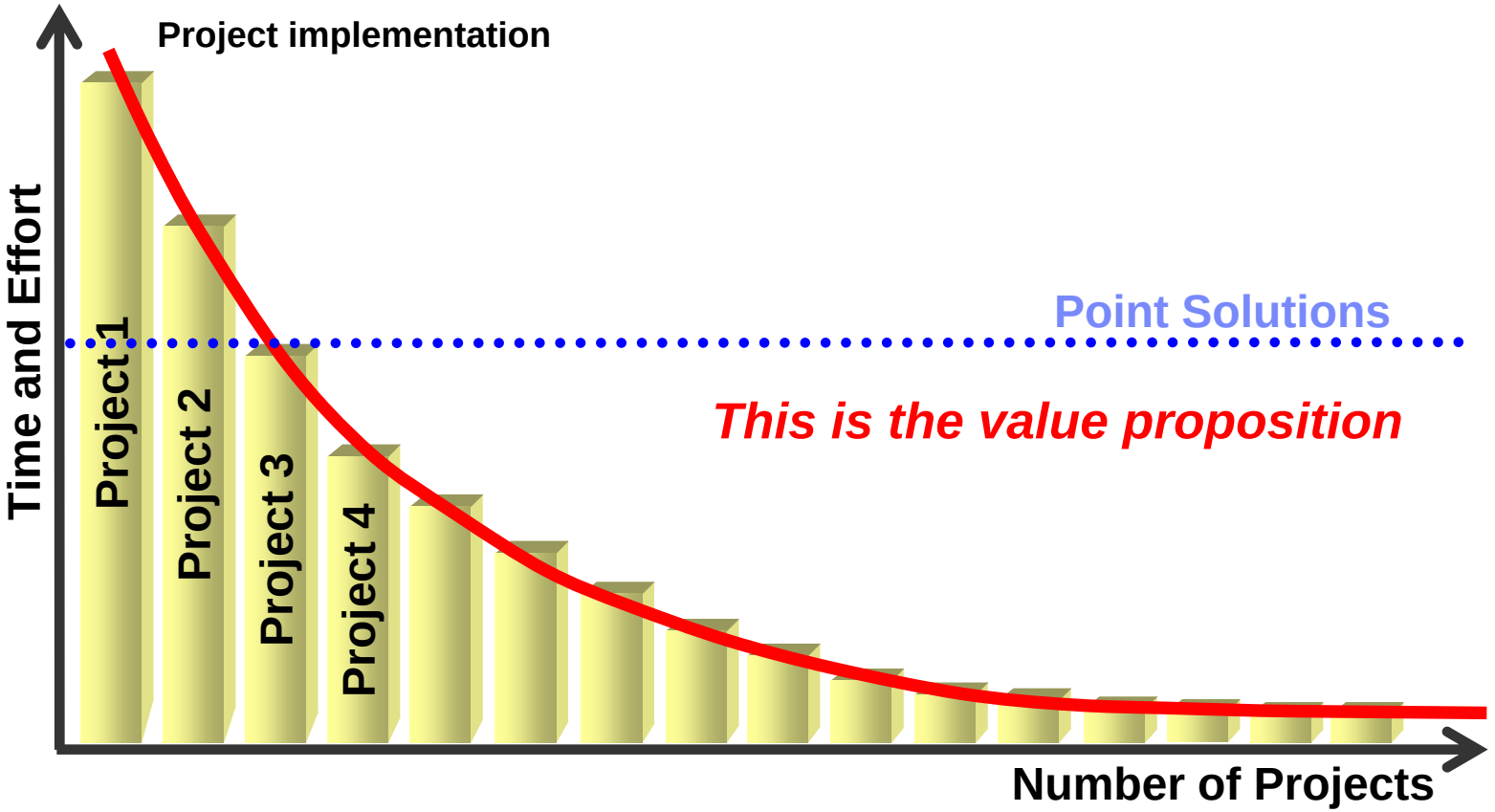
Why is z data repurposing an issue?

- Operational data is ill-suited to business intelligence
  - Summarize, aggregate, transform for consistency
- Technology environment is constantly changing
- Dependence on proprietary APIs limits usage to experts

What are you doing to meet these challenges?

- Hand-code – "Just another extract program"
  - Bottleneck for new initiatives … slows everything down
  - Limited or non-existent reuse
- Shifting sands
  - New platforms, new purchased applications, M & A assets

Systematic Transformation: A Compelling Value Proposition Tool usage (each Project) vs. Point Solutions



Show transformation screen shot

- value prop of reusable transformations

Show ETL workflow with reusable components

- characteristics and benefits

Reusable ETL for Business Intelligence
An example: Faster to build, Easier to enhance

- High cost & frustration for executives writing SQL to extract basic reports and queries from an ODS built in ‘95
- Escalating costs associated with common job failures
- Lack of technical, process, and business metadata
- Need to establish a reliable infrastructure to support of not only the current EDW but the new architecture
- Lack of infrastructure slows down reporting & analysis requests
- Poor IT productivity due to excessive hand coding and lack of re-use throughout the department
- Slow time to market – “Reactive” vs. “proactive” IT

- PICTURE OF IMPLEMENTATION

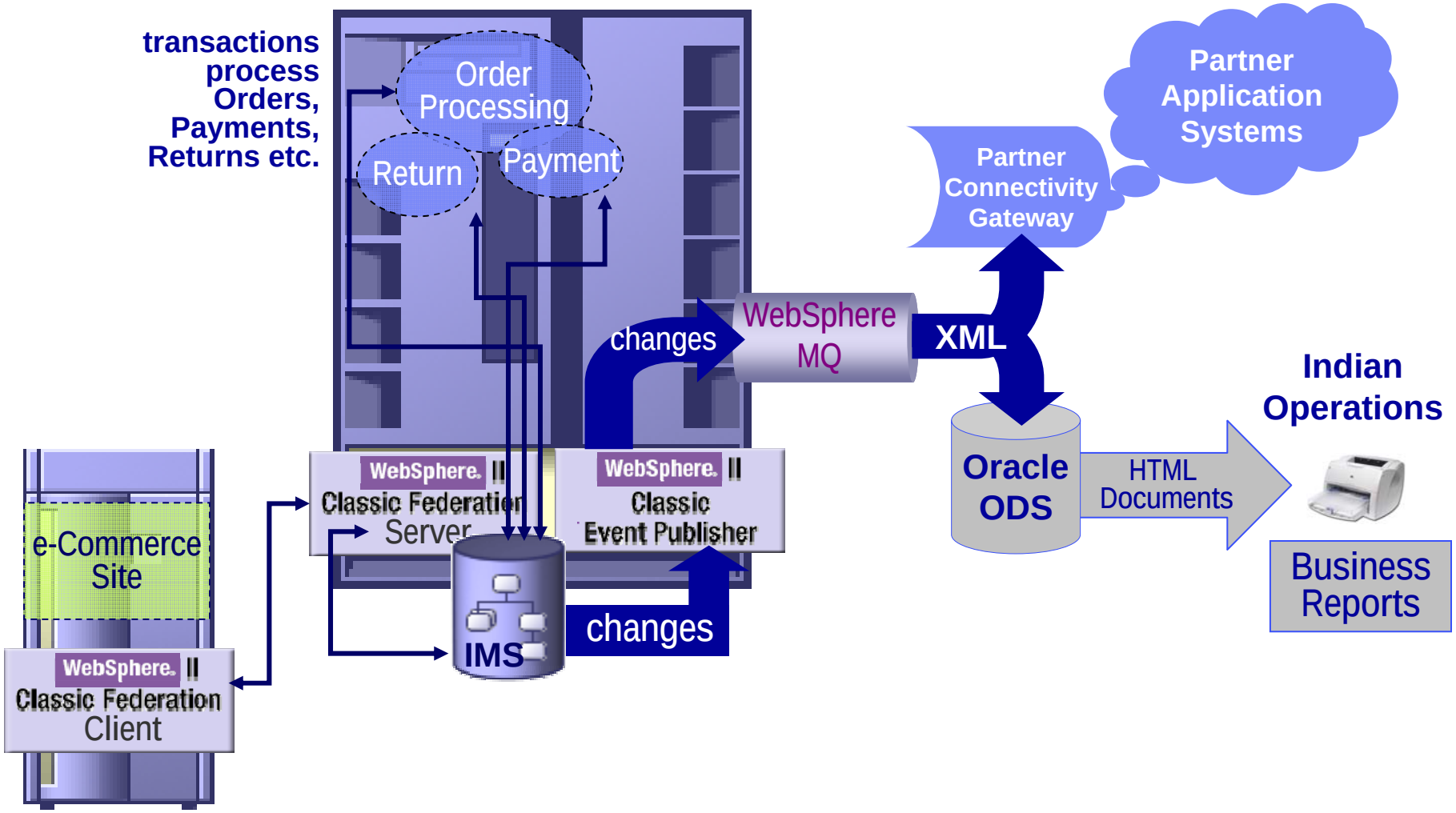
Challenge : How do you handle growing volumes?

How do you keep up with the volume?

- Batch pulls can be a problem
  - When can you take data "off line" in a 24 by 7 Internet world?
- Resources are stressed
  - Communication pipes keep getting bigger and bigger … Is there a limit?
- Users demand up-to-the-second accuracy
  - Yesterday's data isn't good enough
- Repurpose, not just reuse
  - Transformations are essential
- Types of data are growing, not just the amount
  - More and more sources, more and more targets

eCommerce and JIT Inventory and ODS Management

... An example of "right timing"



Federation, Data Event Publishing and ETL
The challenges demand a hybrid solution

Challenge

- Largest international technology reseller implementing their "next generation" operational platform
- IMS operational data retained for maximum scalability and speed
- Multiple operational environments for worldwide, 24 by 7 support

Solution

- WebSphere Information Integrator Classic Federation for Web applications
- WebSphere Information Integration Event Publishers behind ETL and EAI
- Response times of 100-200 milliseconds for 100s of concurrent users

Business benefits

- Uninterrupted operations for customer satisfaction
- Accurate information for sales operations and reporting
- Reduced inventory overhead while also ensuring availability

Technology benefits

- Rapid delivery and on-going enhancement of eCommerce site with no disruption on operations
- Inventory changes automatically fed to JIT inventory management
- Expanded value from existing CICS, IDMS technology

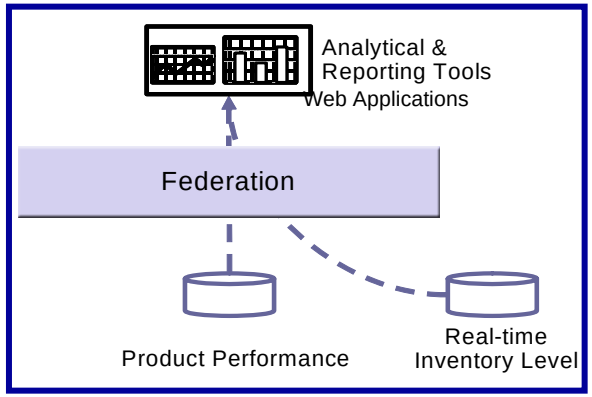
Wrap-up

- Summary
- Q&A

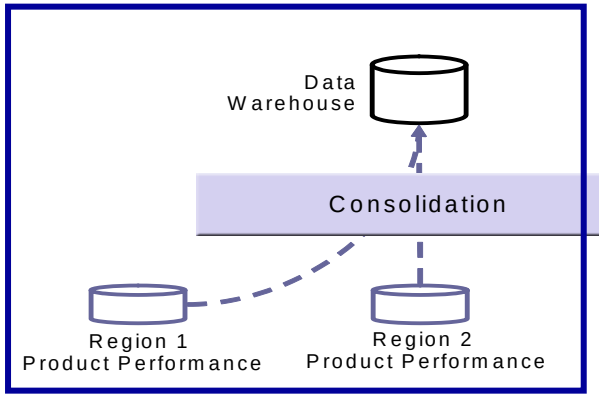
Summary: Multiple Delivery Models are Key to Success

Each type is like a different tool: hammer, wrench, screwdriver, and saw

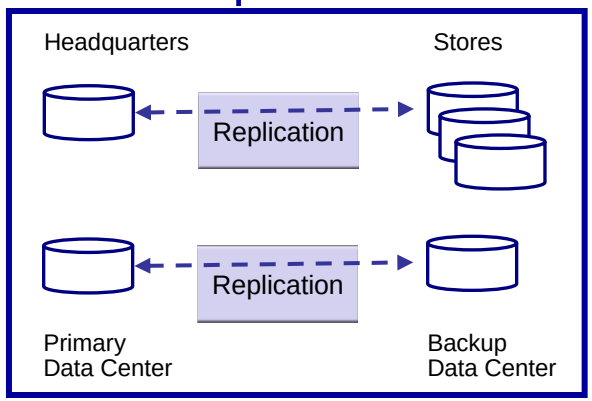
Federation



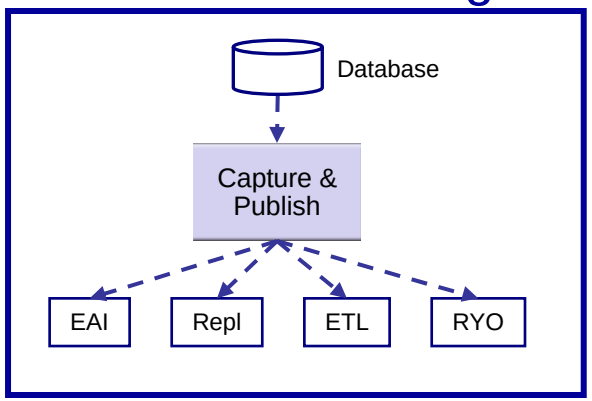
ETL - Consolidation



Replication



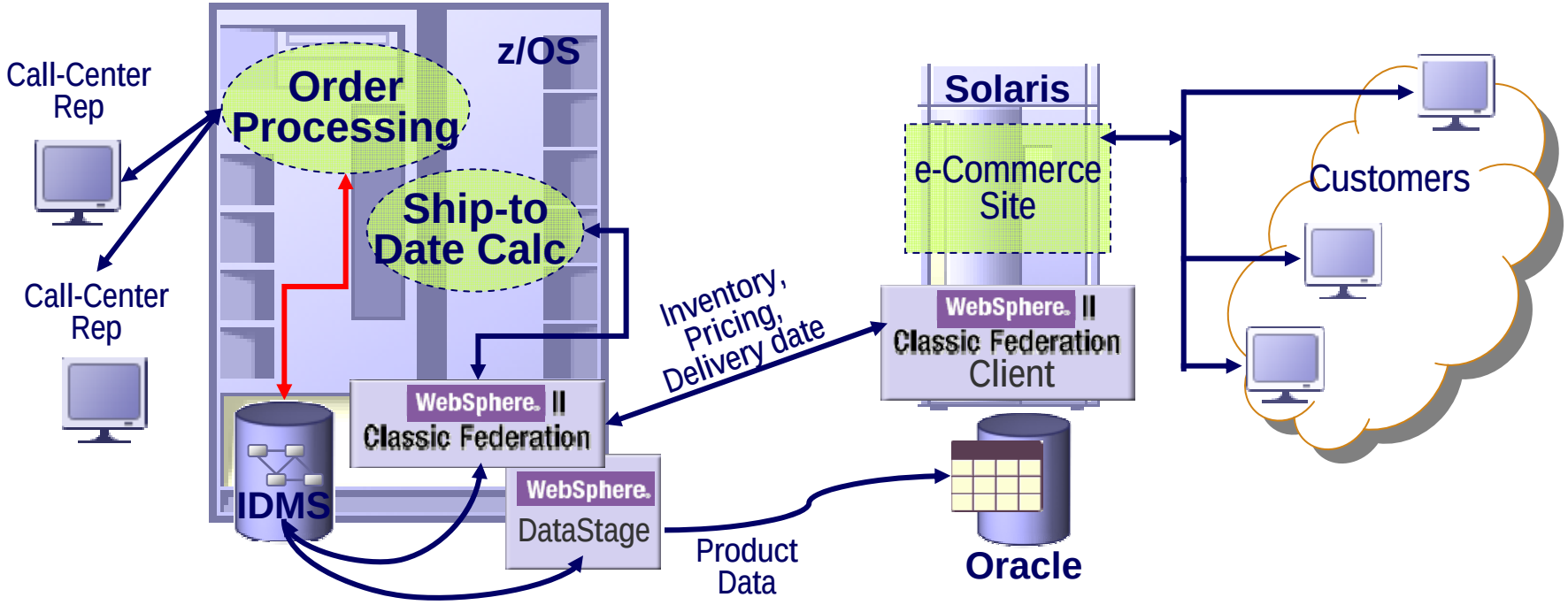
Event Publishing



Your Integration Demands May Need Hybrids…

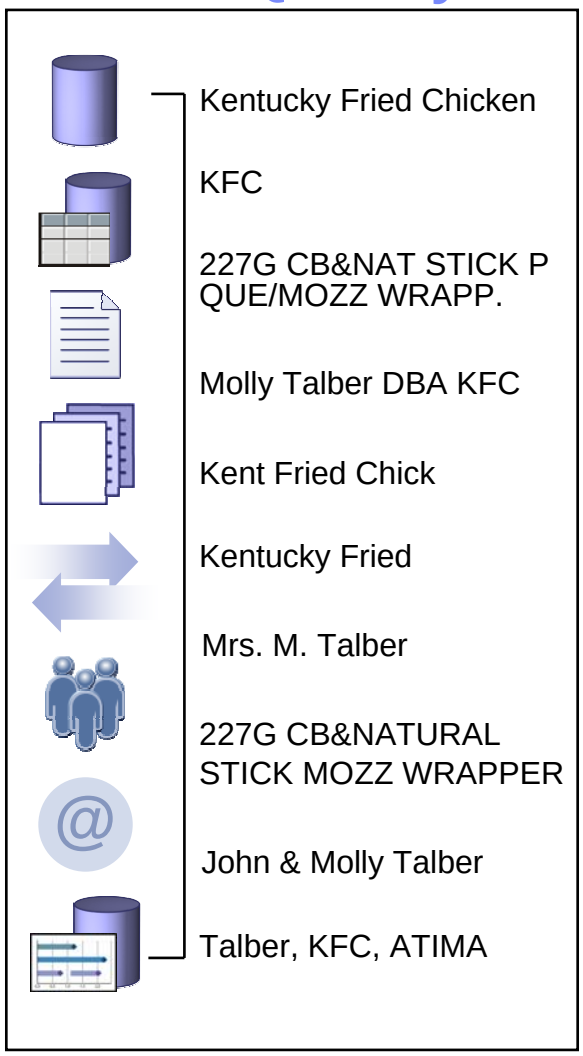
One tool is no longer enough!

- Seamlessly share volatile, mission critical order processing data
  - One version of "the truth" … such as inventory level
- Copy stable product data for performance
  - Product data changes infrequently … copy to maximize Web site performance
- Leverage "push" integration for product data updates
  - Best of both worlds … local copy and up-to-date information when changes occur



Thank you!

Data Quality Directly Impacts Value, Satisfaction



Critical challenges:

- Need to create & maintain 360 degree views of customers, suppliers, products, locations, events
- Need to leverage data - make reliable decisions, comply with regulations, meet service agreements

Why is data quality an issue?

- No common standards across organization
- Unexpected values stored in fields
- Required information buried in free-form fields
- Fields evolve - used for multiple purposes
- No reliable keys for consolidated views
- Operational data degrades 2% each month!

What are you doing to meet these challenges?

- "Load & Explode" - wait for a failure and then fix data
- Hand-code - clerical exception processing; very time consuming and resource intensive

Where could cleansing make a difference?

- **Any data-intensive activity!**
- **Supporting good decisions based on quality data**
- **Improving customer satisfaction with data quality**