IBM Data Management Business Intelligence Overview

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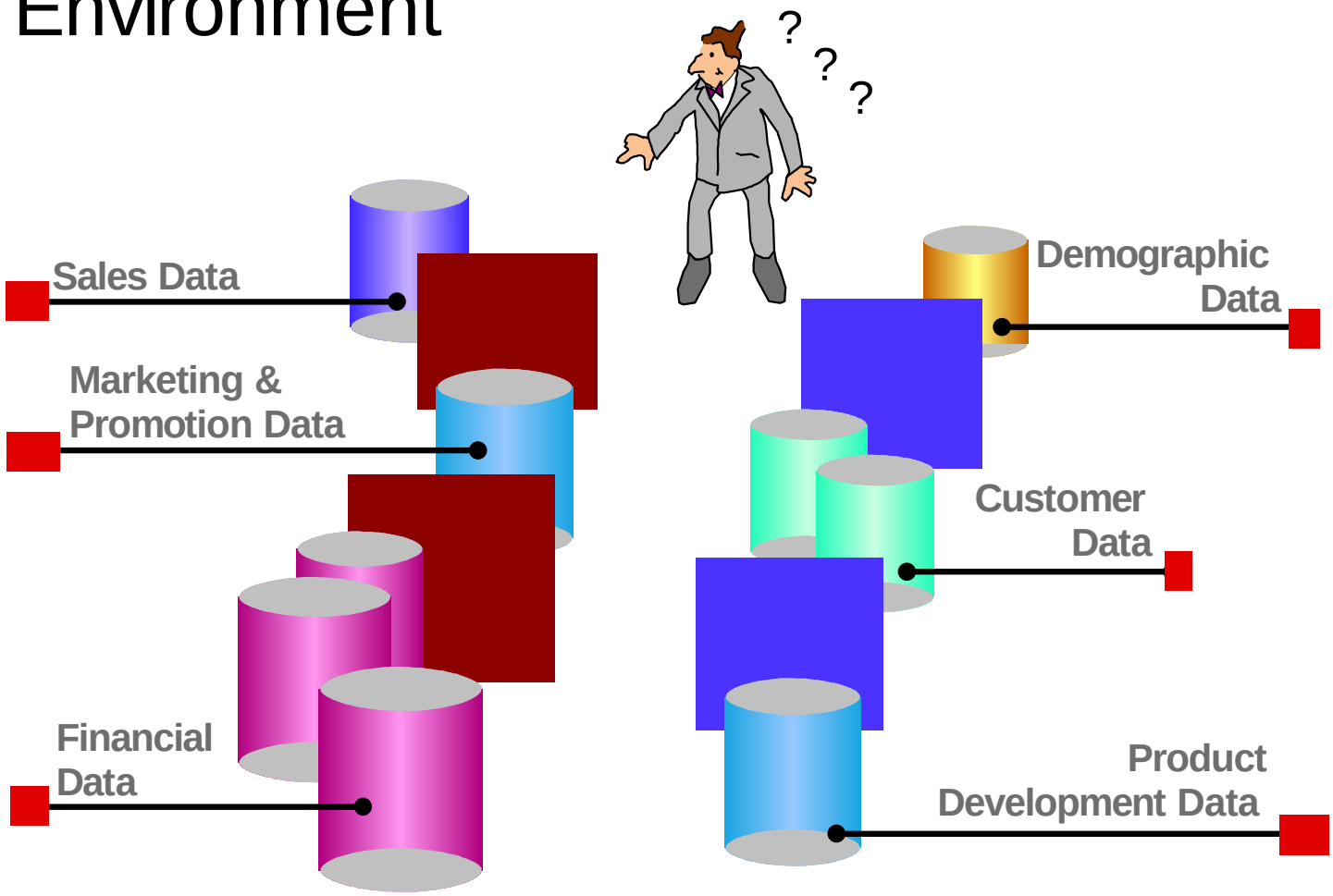
IBM Data Management Business Intelligence Agenda

- **Overview Business Intelligence**
  - What is it
  - Identify and Qualify
- **Expanding the BI Sale**
  - Increase opportunity with portfolio of IBM DM Solutions
- **Competition**
- **IBM Partner Resources**
  - Education and Certifications
  - Additonal Information
- **Summary**

What is BI and How do I explain it?

e-business

A common Production Data Environment

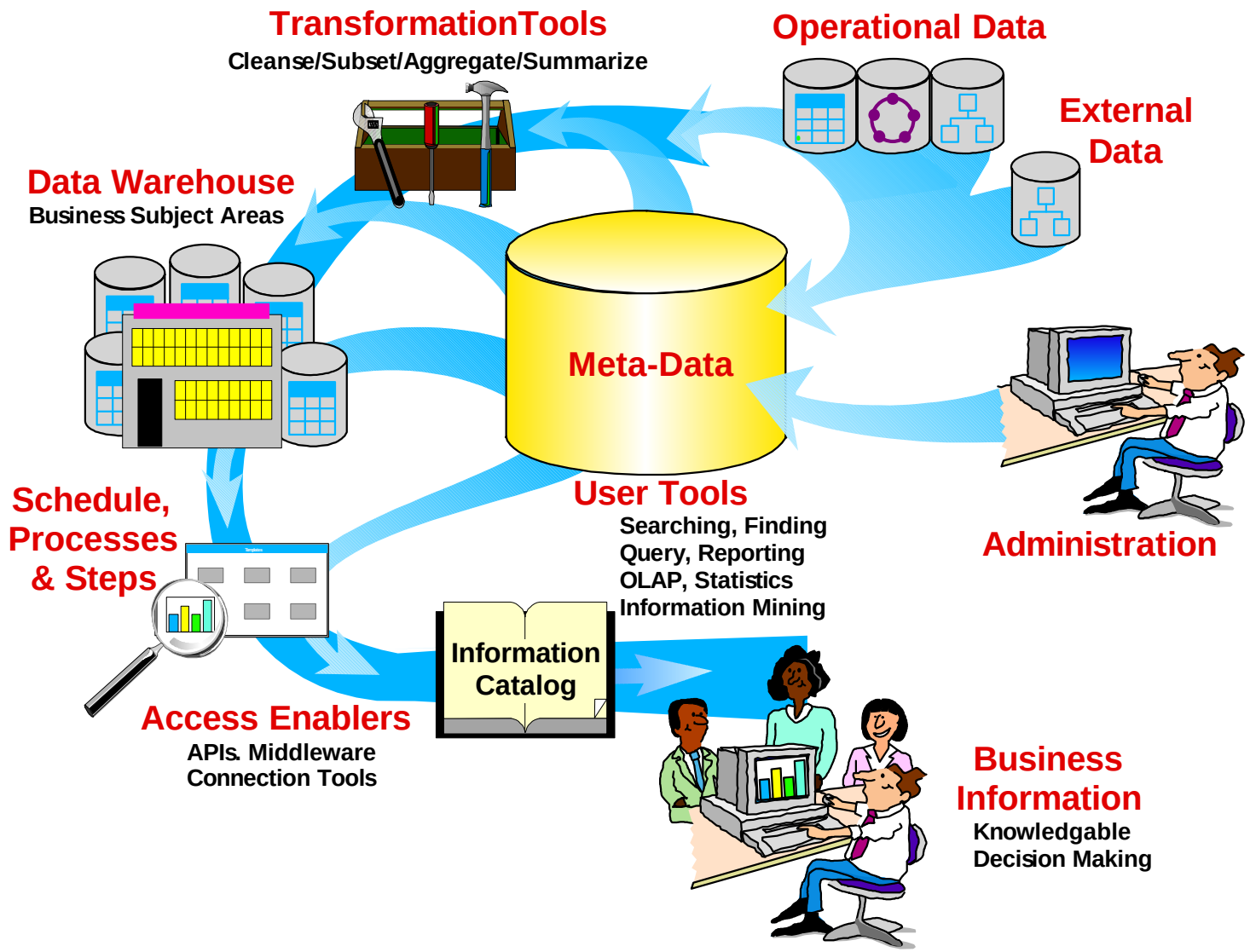


Problems with Current Procedures

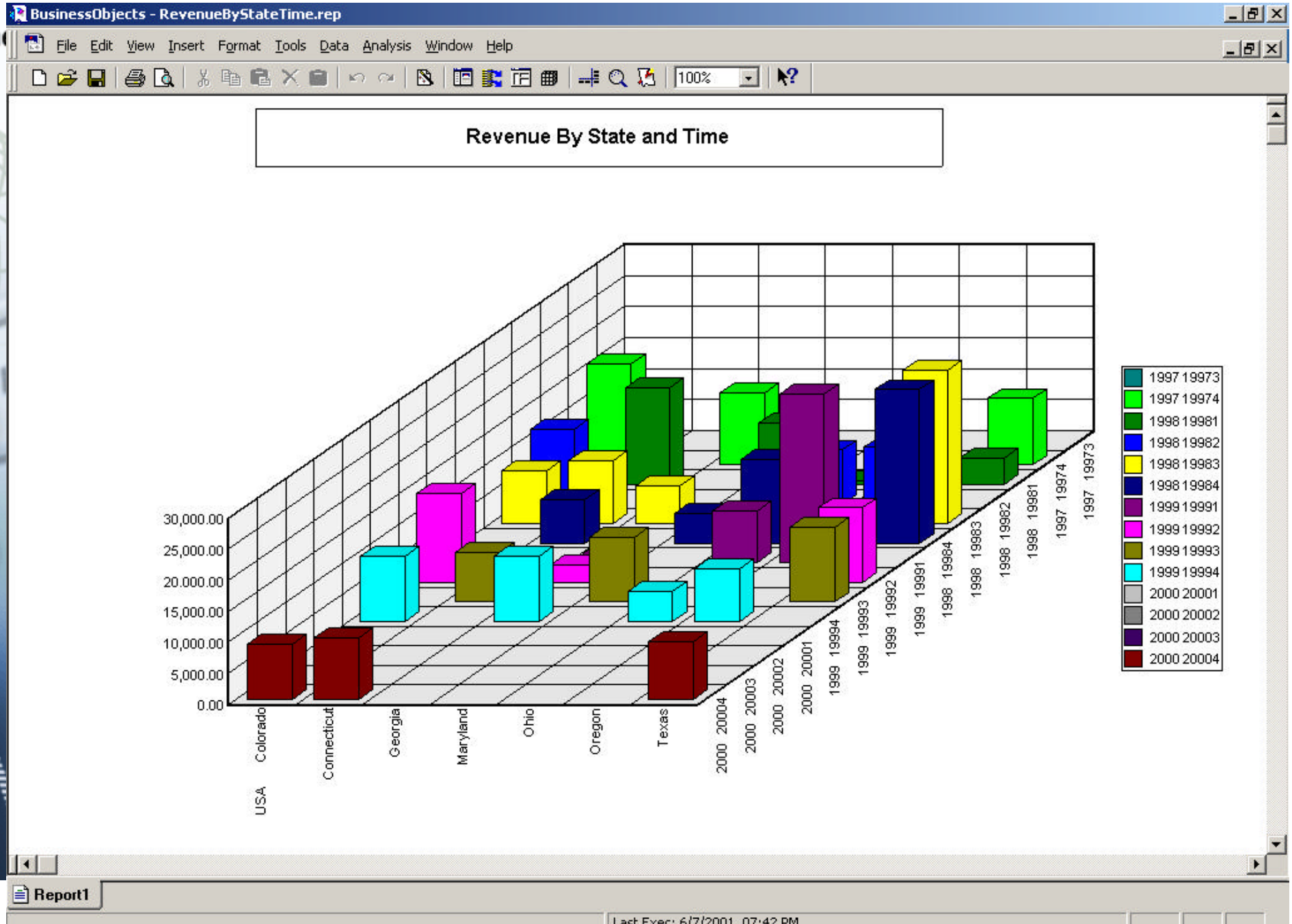
- **Many computers, applications, databases**
- **Databases designed for fast transactions not analysis**
- **Lack of security and protection**
- **Data on individuals' PCs**
- **Inconsistent data**
- **Inadequate tools**
- **Inconsistent processes**

Example: Inconsistent Data
IBM
IBM Corp.
IBM Corporation
International Business Machines

BI is...Data To Information To Business Knowledge...



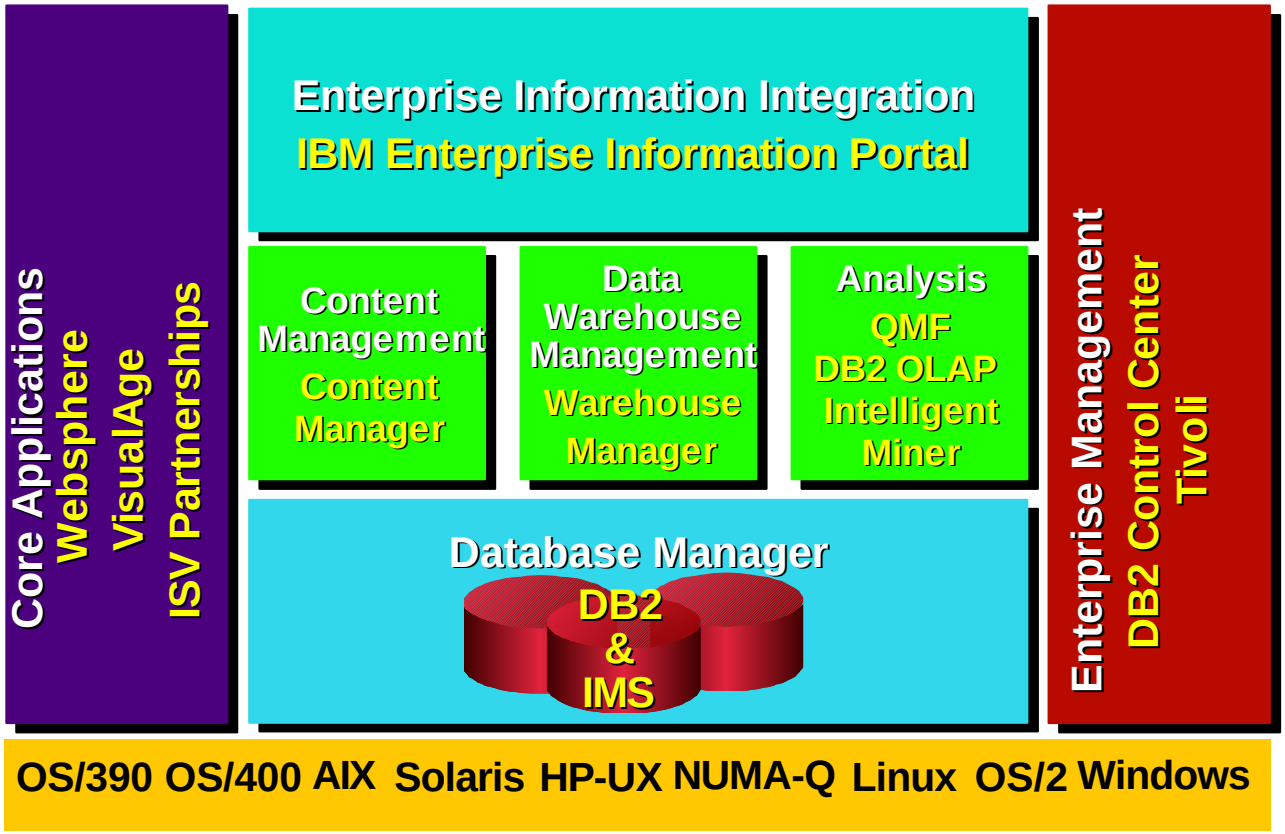
Example of a BI Report



IBM DM Application Framework

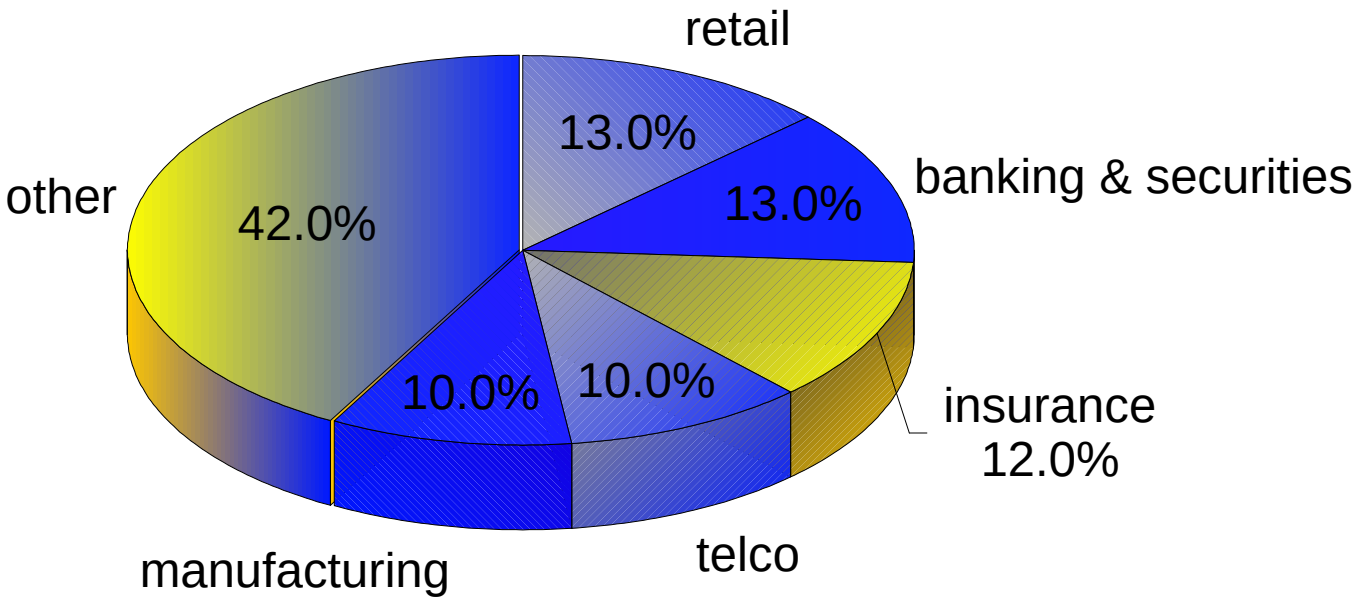
Where does BI fit into the Framework?

Leveraging Information



BI Opportunity by 2002

as seen by Palo Alto Management Group



'other' into which IBM has sold OLAP

- automotive
- healthcare
- utilities
- transportation
- government

$113 Billion Opportunity

according to World Research

What are the steps in selling BI?

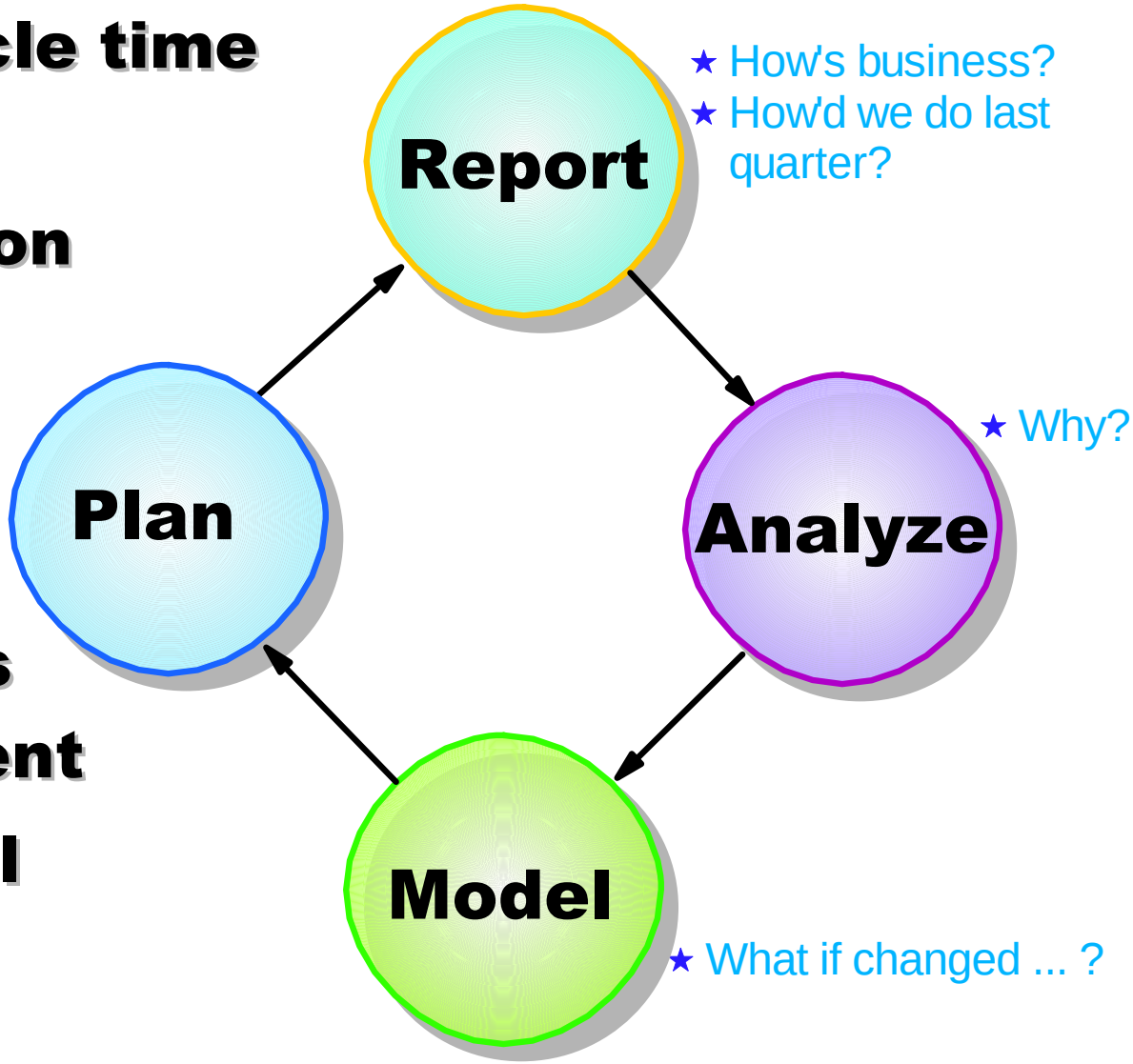
- **Familiarization with BI terminology**
  - Analytics, OLAP (ROLAP, DOLAP)
  - Warehouse, DataMart
- **Goal: Manage Business Better**
  - Leverage the R-A-M-P model in selling
  - Provide solution to assist with all phases of Mgmt Information Cycle
- **Focus on Critical Business Issues**
  - find the pain; expand the vision
- **Expand Sales with the IBM DM Portfolio**
  - Mining, Scoring
  - DB2 Functionality, DB2 Extenders
- **Understand the Competition**

Familiarization with BI terminology...

- **OLAP**
  - OLTP
  - ROLAP, DOLAP
- **Data Warehouse**
  - Safe and secure location for a corporation's entire ODS which everyone in the company can easily find and access. Data is put in an format conducive to analyses.
- **Datamart**
  - Just like a data warehouse except that only some data is kept there, typically to satisfy a specific company business need.
- **Analysis**
  - Techniques used to gain insight from business data to improve business decisions

Goal: Manage Business Better

- **reduce cycle time**
- **more line participation**
- **continuous improvement**
- **more detail**



Customer Target

Customer Size

- Employees 50 to 1,000
- Large number of customers or products
- Competitive market

Cross-Industry

- Retail, Wholesale, Banking/Finance, Insurance, Telecommunications/Media, Government, Manufacturing, Travel/Transportation, Healthcare

Key Players

Key Buyer/Sponsor

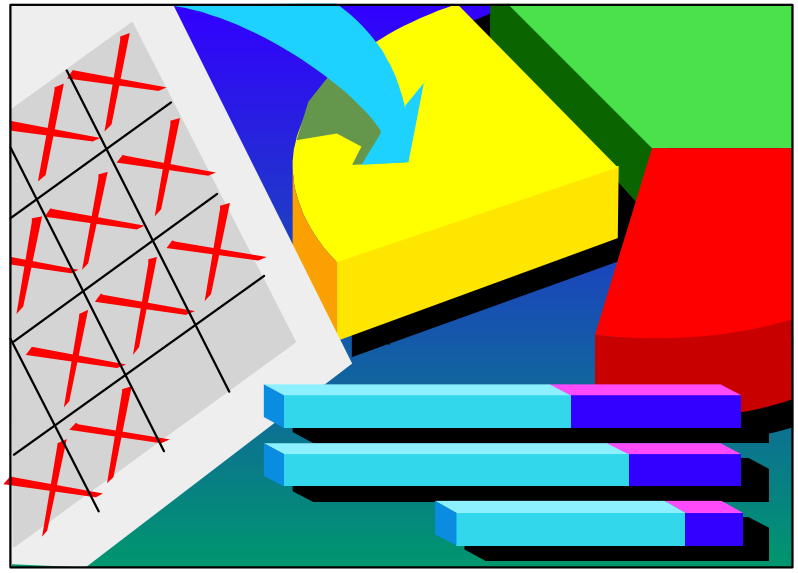
- CEO or Senior Execs
- CFO, V.P. Sales, V.P. Marketing
- Line of Business Execs, Directors, Managers
  - *Customer Focused*
  - *Functional/Operational - Finance or IT*

Key Influencers

- CIOs
- IT Executives and Managers

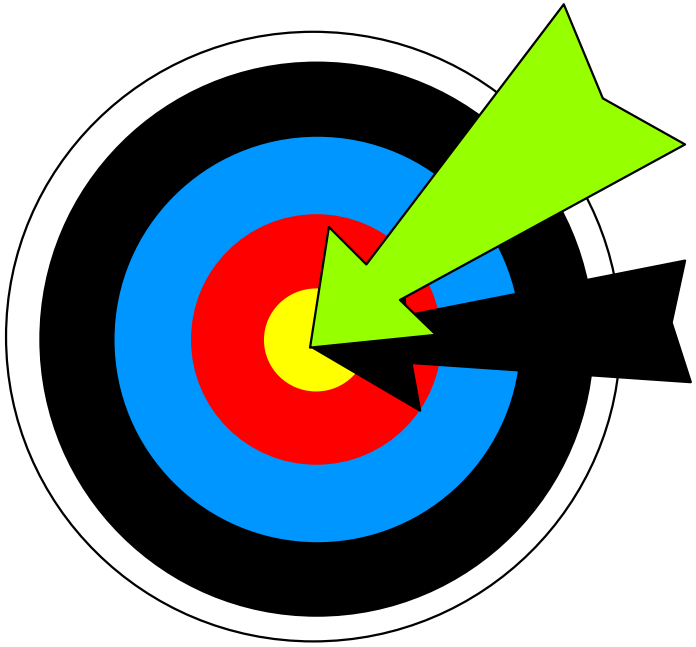
CFO Pain

Do you need to Reduce analysis time in finance from days to minutes?



Sales VP Pain

Do you need to know who has sold what to whom and when?

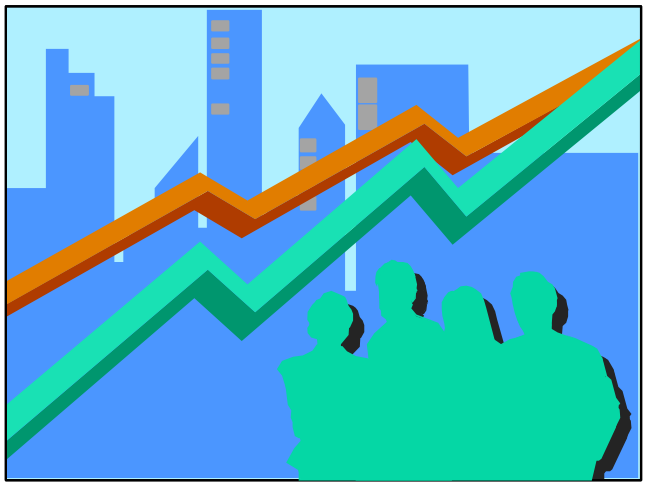


I/T Pain

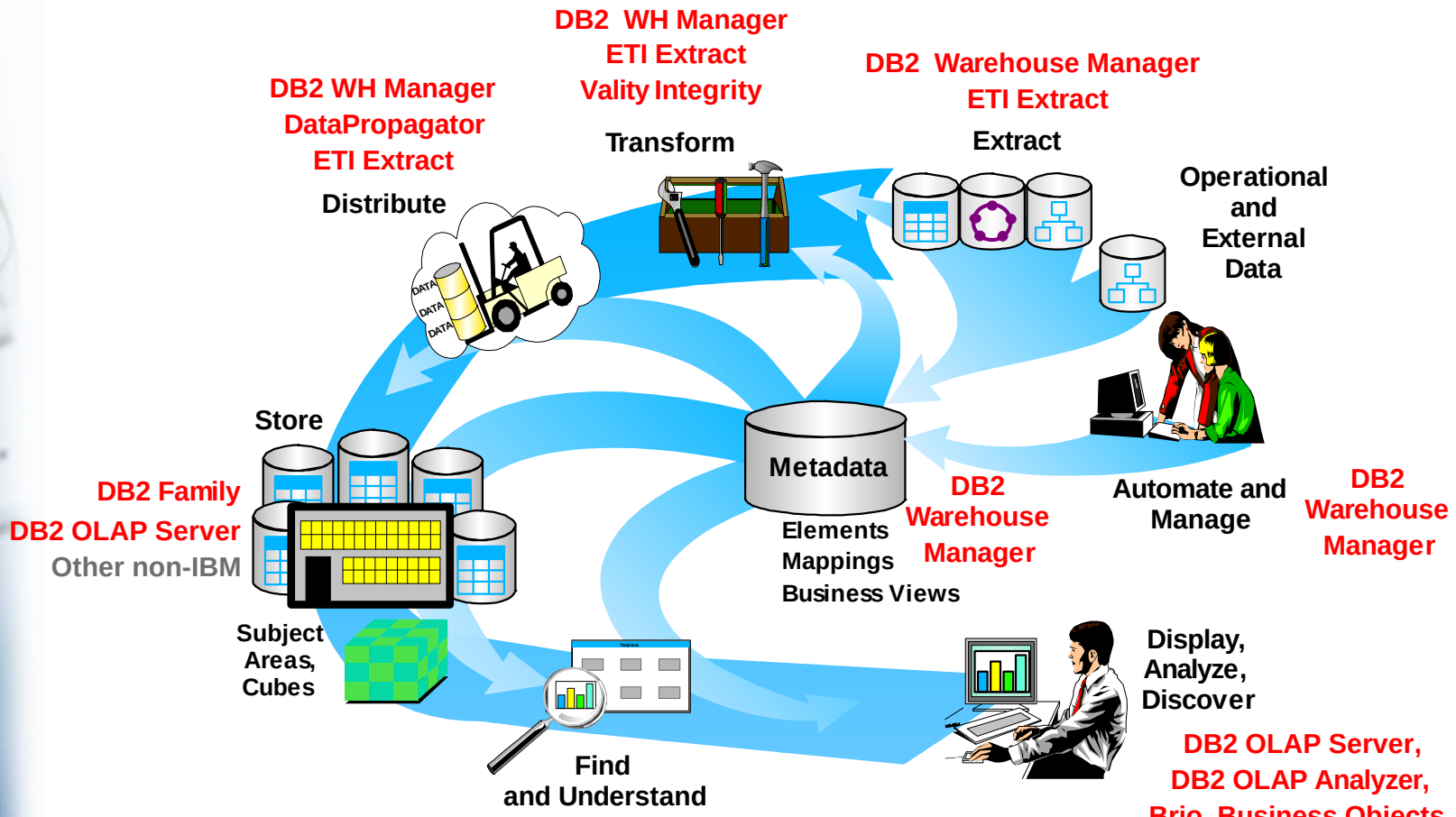
Do you need to get your life back?

What's in it for the Customer

- **Typical ROI Scenarios**
  - Total change to the business
  - Cost savings
  - Revenue gains
  - Profit gains



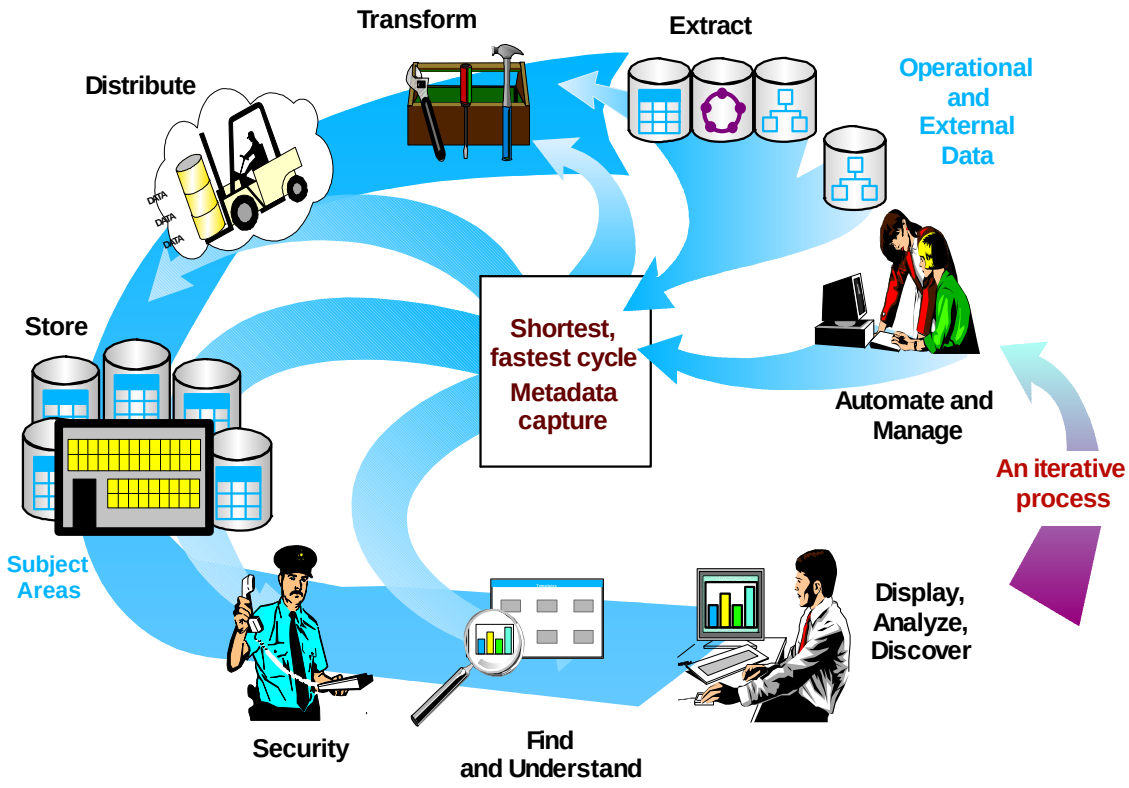
IBM DM/BI Solution Components



Expanding the Sale...

IBM provides the tools and the products for complete Data Management BI Solutions

- DB2 Family
  - DB2 Warehouse Center
  - DB2 OLAP "Starter" Kit
  - IBM Middleware included in DB2
- The Full DB2 OLAP Product
- DB2 Data Warehouse Manager
- IBM Middleware
- DB2 Intelligent Miner
- DB2 Extenders
- Third-Party Partner Products



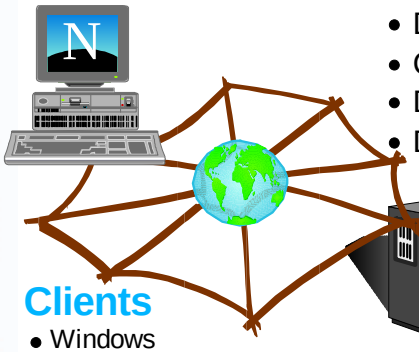
The DB2 Family

Complete Solutions

Other Sources
- Oracle
- Sybase
- Informix
- SQL Server
- IMS
- VSAM

Middleware
- Net.Data
- DB2 Connect
- DB2 Relational Connect
- Classic Connect
- DB2 DataJoiner
- DataPropagator

Hosts
- DB2 UDB for OS/390, z/OS
- DB2 for MVS/ESA
- DB2 for VSE and VM
- DB2 UDB for OS/400

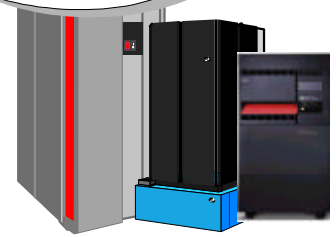


WAN
TCP/IP
SNA LU 6.2

LAN
TCP/IP
IPX/SPX
NetBIOS
SNA

Clients
- Windows
- Win NT/2000
- Win 95, 98
- OS/2
- AIX
- HP-UX
- SCO
- SUN Solaris
- SNI SINIX
- SGI IRIX
- NUMA-Q PTX
- Macintosh
- Lotus Notes
- Web Browsers

Enterprise Servers
- DB2 UDB for OS/400
- DB2 Universal Database on AIX, NUMA-Q PTX, Sun Solaris, HP-UX, Linux, OS/2, Windows NT/2000



Workgroup Servers
- Linux, OS/2, Windows NT/2000

Parallel Complexes
- DB2 Universal Database EEE for AIX, PTX, Solaris, HP-UX, Win NT/2000, Linux
- DB2 UDB for OS/390, z/OS
- DB2 UDB for OS/400

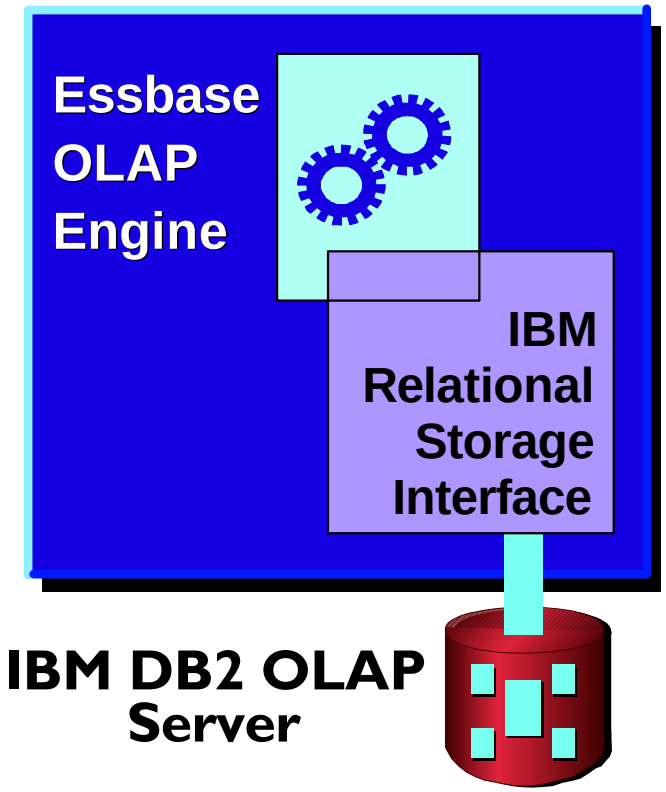
Personal
- DB2 Universal Database for: OS/2, Linux, Windows NT/2000, Windows 95 & 98

Management
- DB2 Control Center
- DB2 Command Center
- Data Warehouse Center
- Tivoli

Development
- DB2 Developer's Edition
- DB2 Migration Tookit

+ DB2 Satellite Edition (Mobile - 95/98/NT/2000)
DB2 Everyplace (Palm)

IBM DB2 OLAP Server

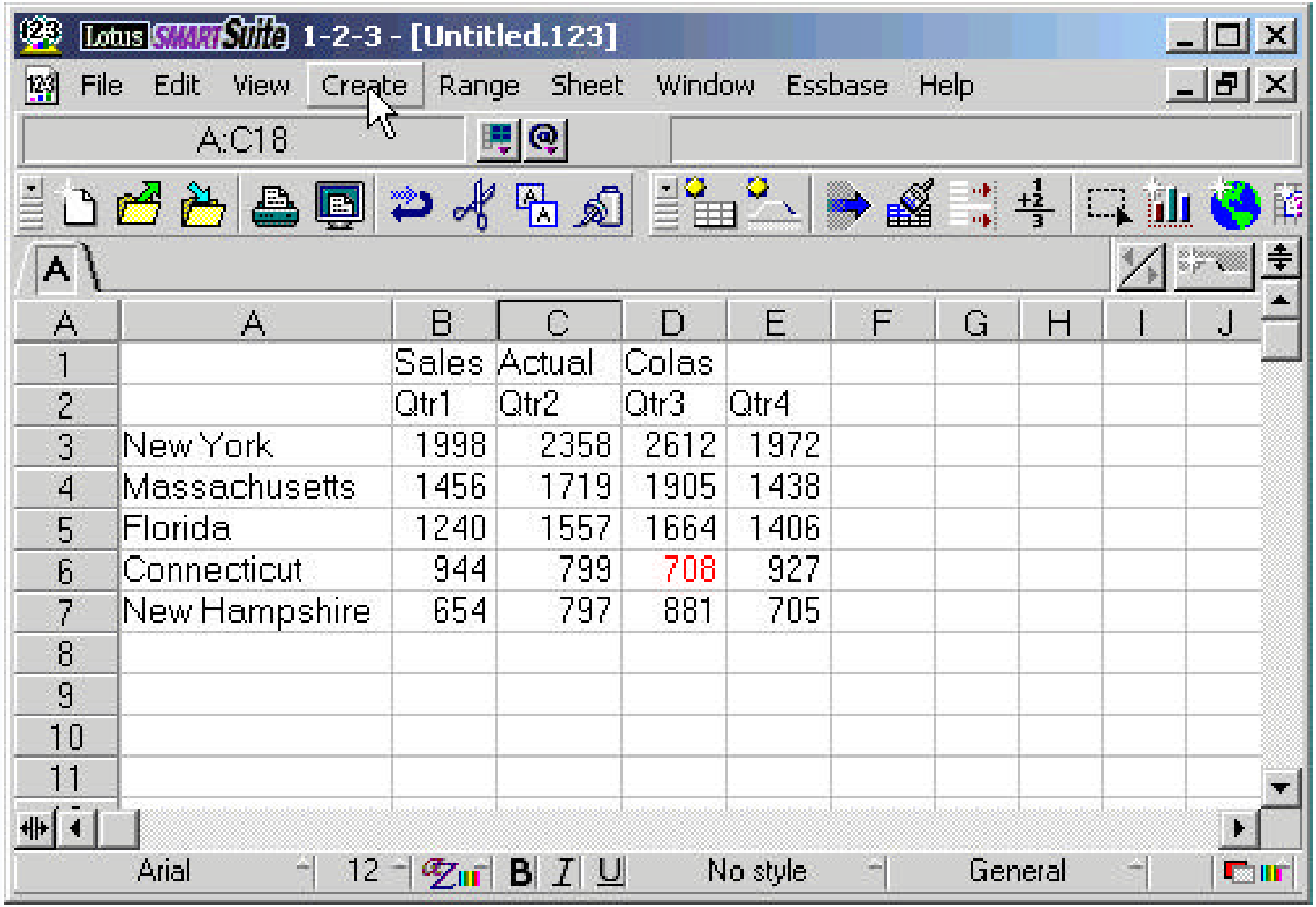


- **Provides fast, intuitive analysis through comprehensive analytical calculations & views**
- **Relational Storage Interface leverages full power of Essbase OLAP engine**
- **Accessible by popular front-end tools including all standard SQL access tools and Essbase-ready tools**
- **Provides multi-user read-write key to what-if applications such as budgeting, forecasting & planning**
- **Enables linking of discrete appls. such as forecasting & accounting**

OLAP Mining or Deviation Detection

- **Detecting data inside OLAP cube that are"deviations"**
  - significantly different from surroundings
  - across all levels of the hierarchy
- **Present deviations through reports**
  - spreadsheet
  - deviation listings
- **Using the DB2 OLAP "Sample" DB**
  - definition is created to mine actual sales of colas in the east region and all of its cities, for all quarters and months
  - looking for unusual sales characteristics for this period

OLAP Mining Example



	A	B	C	D	E	F	G	H	I	J
1		Sales	Actual	Colas						
2		Qtr1	Qtr2	Qtr3	Qtr4					
3	New York	1998	2358	2612	1972					
4	Massachusetts	1456	1719	1905	1438					
5	Florida	1240	1557	1664	1406					
6	Connecticut	944	799	708	927					
7	New Hampshire	654	797	881	705					
8										
9										
10										
11										

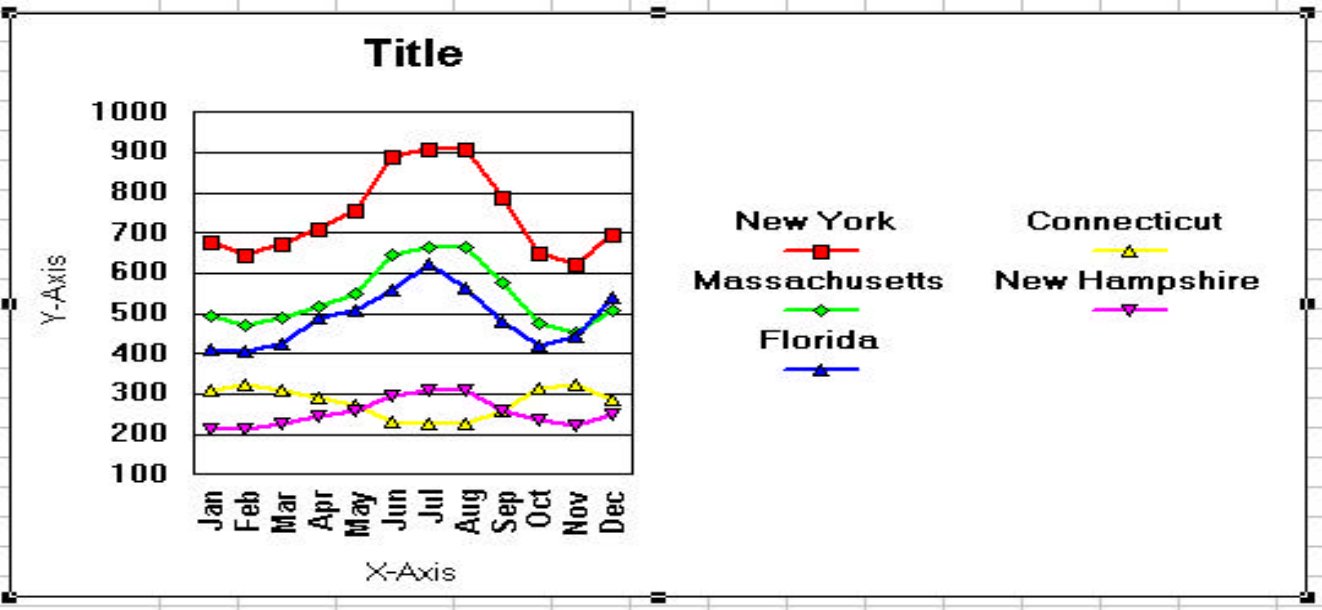
e-business

Lotus SMARTSuite 1-2-3 - [Untitled.123]

File Edit View Create Chart Sheet Window Essbase Help

Chart 1

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1			Sales	Actual	Colas										
2		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
3	New York	678	645	675	712	756	890	912	910	790	650	623	699		
4	Massachusetts	494	470	492	519	551	649	665	664	576	474	454	510		
5	Florida	410	406	424	489	508	560	622	563	479	423	442	541		
6	Connecticut	310	325	309	292	275	232	225	225	258	313	325	289		
7	New Hampshire	213	215	226	246	257	294	311	311	259	234	222	249		



Ready

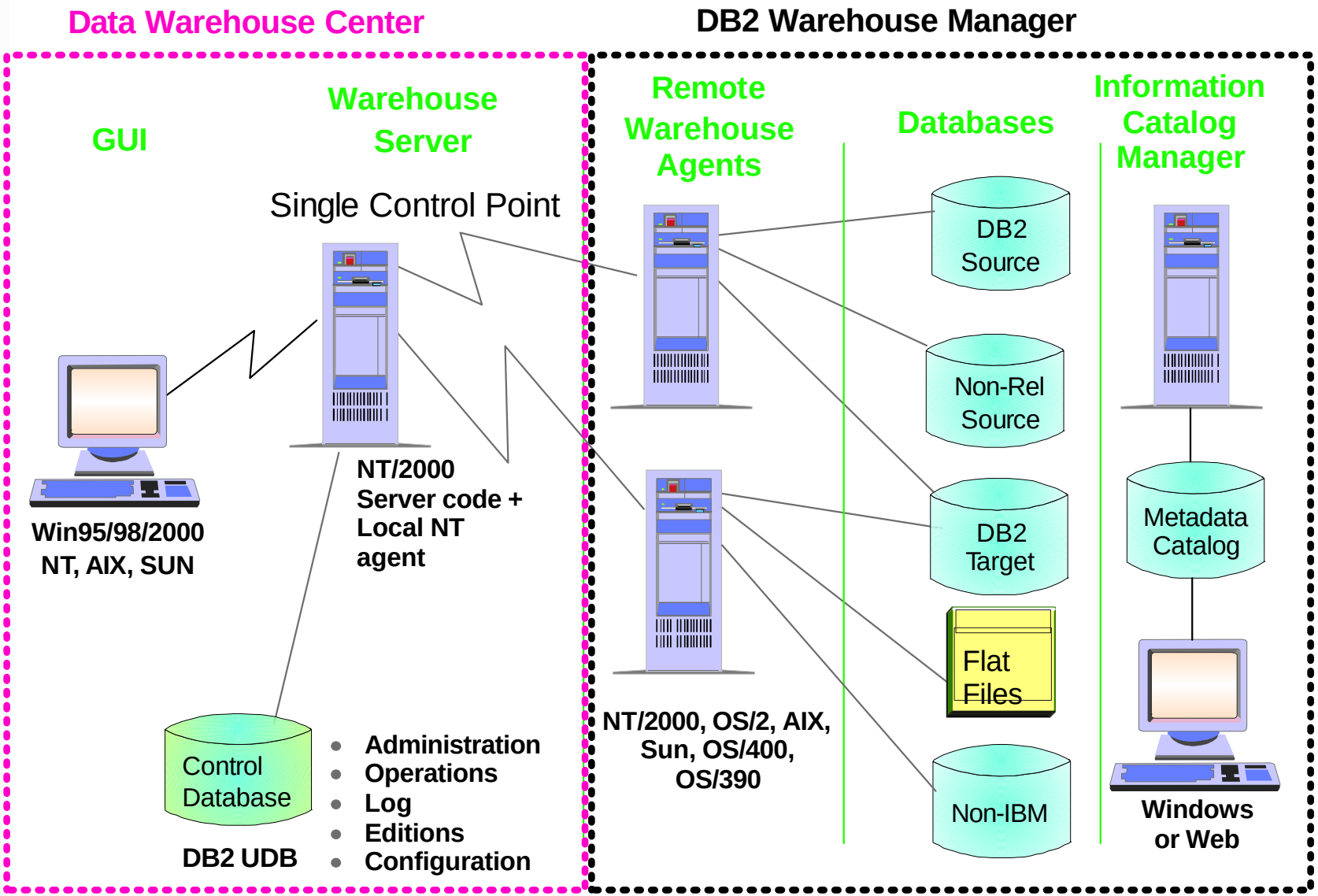
IBM

Service Provider Solution Series for e-business

Front End Analysis for OLAP

- **DB2 OLAP Analyzer**
  - strength - OLAP data
  - relational access via " Drill through"
- **QMF**
  - Relational Queries and Reports
- **Brio**
  - DB2 OLAP Server data
  - relational data
  - no server
- **Business Objects**
  - DB2 OLAP Server data
  - relational data
- **Many more tools and applications**

Data Warehouse Center & Data Warehouse Manager



Data flow is direct source to target, not via Warehouse Server

Data Warehouse Manager - Extends Data Warehouse Center

- Additional Warehouse Agents - Improved scalability
  - Distributed warehouse agents that manage the flow of data between sources and targets
  - Ability to collect and send data using WebSphere MQ
- Transformers
  - Advanced data transformations for cleansing
  - Integration with third-party products such as Evoke, Trillium, Vality for analysis and transformation
- Information Catalog Manager
  - Integrated catalog to help users with the contents of a data warehouse
  - Run queries,reports and analyses against warehouse data
- Query Patroller
  - DB2 Query Patroller for analyzing,tracking and governing data warehouse queries and analyses.
- QMF/QMF for Windows
  - for query and reporting on data warehouse data

New for 7.2 ! - Additional connectors for Web, SAP R/3, i2

IBM Data Warehouse solutions...

- Who to call?
  - Sponsor/Provider: IT Exec responsible for DW
  - Recipient/User: primary business user(s)
  - Implementers: architect & systems support
- Why Buy?
  - Technical architecture for shortest and most secure delivery/change
  - Proven leadership in the marketplace
  - Addresses the customer's needs on the widest variety of platforms
  - Open, Scalable

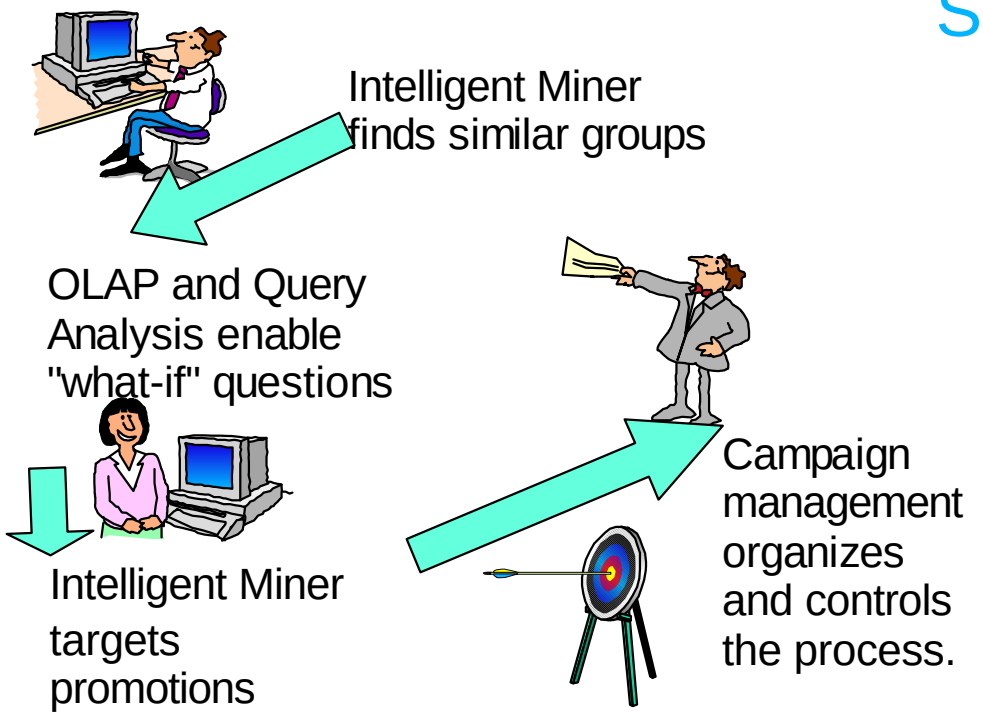
How to Identify Opportunities for Data Warehousing

- **New warehouse or datamart interest**
- **Exsiting warehouse customer**
  - may have articulated pains or concerns in a key area, such as data quality
  - Early experiences have created concerns of scale
- **New data sources under consideration**
  - such as "e-data"
- **Interest in Business Intelligence tools**
  - with little structure behind the sources of information
- **Interest in data warehouse**
  - without clearly articulated goals or uses

Data Mining Solutions

DB2 Intelligent Miner for Data

- ✓ Data Mining
- ✓ An exploratory process
- ✓ An experienced analyst



DB2 Intelligent Miner Scoring

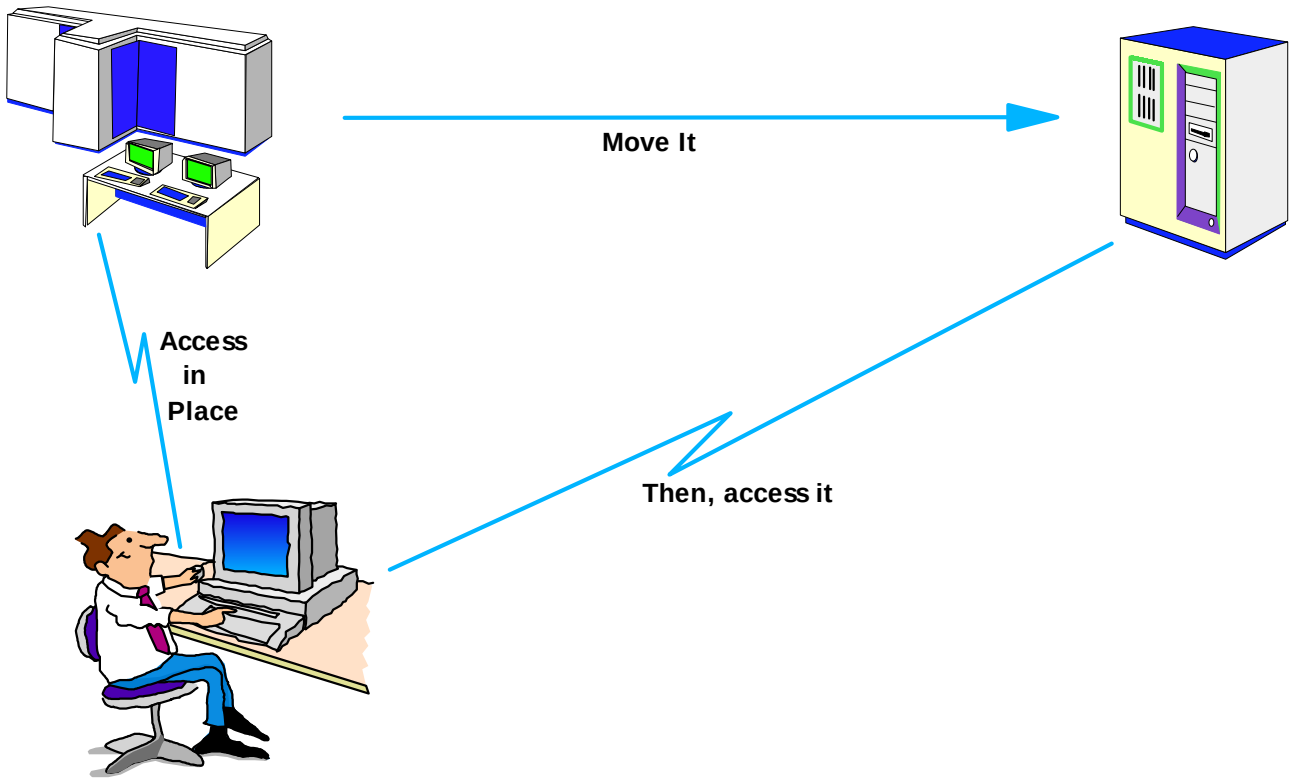
- ✓ Deployment
- ✓ repeatable process
- ✓ Real-time prediction

How to Identify Opportunities for Data Mining

- **Customer**
  - has a lot of data, has many customers
  - requires Fraud detection
  - is in a profit squeeze
  - wants to initiate CRM
- **Target Industries or Application Areas**
  - Retail - Market Basket Analysis, Customer Behavior, Cross-Selling, Up-Selling
  - Telco - Fraud Detection, Attrition
  - Production - Quality Analysis, Warranty
  - Insurance - Risk Classification, Fraud Detection
  - Banking - Credit Scoring, Win profitable Customers, De-Marketing
- **These discussions can open door for**
  - Warehousing
  - DB2

IBM MiddleWare - How does it fit with BI solutions and How do I sell it?

- **Alternative ways to Provide Data Access**
  - Access the data in place
  - Move the data, then allow access



How to identify IBM BI Middleware opportunities for BI

- **DB2 Connect**
  - Customer needs to access data stored in DB2 on z-series or i-series:
    - *to create an OLAP cube*
    - *for data warehousing*
    - *for a web application... for any reason*
- **DB2 DataJoiner**
  - Customer needs to access data across several systems and databases
    - *to read and write data from DB2 to Oracle, SQL Server, Informix, Teradata, Sybase, or any supported Datajoiner target*
    - *to access both DB2 and non-DB2 data from a web server on Intel/UNIX*
    - *to join savings/checking acct. data on Oracle and mortgage data on DB2 from a VB application*
- **DB2 Data Propagator**
  - Customer needs to replicate data
    - *from DB2 on OS/390 to DB2 on Solaris*
    - *from DB2 on an HP-UX transaction-based order database to a decision-support database on DB2 for OS/390*
    - *incrementally from DB2 for OS/390 to a DB2 DataWarehouse on Windows/2000*

DB2 Extenders

- **DB2 XML Extender**
  - allows an XML document to be stored in a single DB2 column or collection of columns
- **DB2 Net Search Extender**
  - supports word, phrase,fuzzy and wildcard searches
- **DB2 Spatial Extender**
  - adds ability to store maps and location information in a DB2 data warehouse
  - SQL API
    - ✓ *analytic applications can access both spatial and non-spatial data in the same database query*
  - ESRI-compatible GIS API
    - ✓ *existing GIS applications (ArcView,ArcExplorer,)can be used to access and analyze the DB2 spatial data*

Who is the Competition?

Primary Competitors for Business Intelligence (Data Management) are:

- **Oracle**
- **Microsoft**
  - Growing Data Management Presence
  - Also an IBM Partner
- **MicroStrategy**
- **NCR Teradata**
  - In large DW opportunities

How to get started...

- **Call High - try Business people, not IT**
- **Identify Pain, increase awareness**
  - "Cause-the-Pause" to CFO or CIO
  - Try unsolicited comparison proposals
- **Integrate steps into the SSM process**
  - find the area "best suited"
  - gain customer commitment
  - demo and reference sell
  - select a solution/partner
- **reference sell in the organization when complete**

Engineer the Vision...

- **Business Process Pain**
  - Business Intelligence
  - Data Management
  - Middleware
- **Lack of Information Analysis Pain**
  - Business Intelligence
  - Data Warehousing
  - Data Mining
- **Information Integration Pain**
  - DB2
  - Business Intelligence
  - Data Warehousing
  - Middleware - Multiple heterogeneous platforms

Assist with Customer Decision making...

- **Focus on Total Solution to Business Person**
  - TCO and Best-of-Breed Strategy
- **Neutralize Technical Influencer**
  - Benefit to know multiple DBs and both OLTP and OLAP technologies
- **Identify IBM Strengths**
  - Complete Solution
  - Cross Platform Support
  - Service and Support
  - TCO

Reaping The Benefits

e-business

MobiComp

Bank of Montreal

Lands End

Business Opportunity

State of California

Penn State

Timex Canada

State of N.Y.

Metro Toronto Police

US Air

AutoZone

Operational Efficiency

Customer Relationships

Pep Boys

McDonalds Canada

Ryder

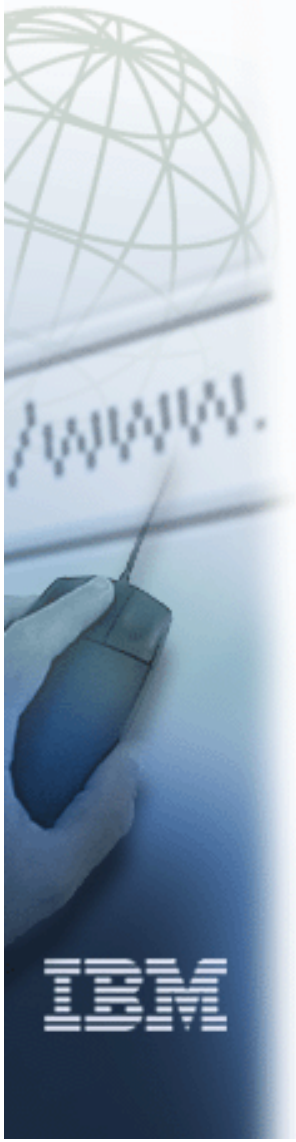
Directware

NetSetGo

eScholar

Safeway

Queen's University



IBM Partner Resources and Web Sites

- **DM Partner Teams**
  - BPSM Organization, DM Direct Sales Team, BP Recruit, Enable, Sales Team
- **IBM PartnerWorld for Software**
  - www.ibm.com/partnerworld/software
    - *Enter the Business Partner Zone (ID/Password)*
- **IBM Data Management Channels Website**
  - www.ibm.com/software/data/channels
  - Consolidated view with links to variety of resources; supplement to PartnerWorld for Software
    - *Subscribe to "DB2 Today" - monthly newsletter e-mailed to 80,000 DB2 customers*
    - *Complimentary DB2 Certification Jumpstart Kit for BPs*
- **IBM Data Management Website**
  - www.ibm.com/software/data
  - drill down to DB2, BI, Content Management, etc
    - *Downloadable free self-study course on DB2 Universal Database*
    - *www.ibm.com/software/data/db2/selfstudy*
- **IBM Data Management Events**
  - www.ibm.com/software/data/events
- **One-Click Demo CD**

Data Management and BI Certifications

- **DB2 Universal Database**
  - IBM Certified Solutions Expert - DB2 UDB V7.1 Database Administration
  - IBM Certified Solutions Expert - DB2 UDB V7.1 Family Application Development
- **Business Intelligence**
  - IBM Certified Solutions Expert - Business Intelligence (covers Warehousing, OLAP and Mining)
- **For more information:**
  - www.ibm.com/partnerworld/software
  - select "Education"
  - select "Accepted and Complementary Certifications"
  - within "Data" segment, select appropriate certification

Complimentary DB2 V7 Certification Testing Offer

- **Offer details can be found on:**
  - www.ibm.com/software/data/db2/skills
- **Offer valid**
  - April 1, 2001 through December 14, 2001
- **Practice tests are available**
- **Score 75% on an online assessment test to receive a voucher for exam at testing site**
  - DB2 UDB V7 Family Fundamentals
  - DB2 UDB V7 Database Administration
  - DB2 UDB V7 Family Application Development
- **PartnerWorld for Software "Value Package" not required for this offer**

IBM...

- **is investing to win in the DM market**
  - Ideally positioned for supporting scalable enterprise analytics
  - DB2 has credibility with customers, analysts and Business Partners
    - ✓ *has a combined pricing and technology leadership that can't be beaten*
    - ✓ *integrates more functionality into DB2 and is 1/2 the cost of Oracle*
- **Business Intelligence**
  - OLAP
    - ✓ *DB2 OLAP integrates industry-leading multidimensional analysis capabilities from Hyperion with IBM's award-winning DB2 UDB to enable business analytical applications*
    - ✓ *leverages customers' investments in end-user tools and provides multi-user concurrent read-write support and "analytical collaberation" for the complete RAMP management cycle*
    - ✓ *NEW!! Automate deviation detection in OLAP cubes, across all levels of the hierarchy and report deviations in listings or in spreadsheet format*
  - Warehouse Management
    - ✓ *Data Warehouse Center integrates with other tools using industry standard Common Warehouse Metadata Interchange*
    - ✓ *The DB2 Warehouse Manager extends the scaleability, manageability, and accessibility of DB2 warehouses*

DM Partner Sales / Enablement

e-business

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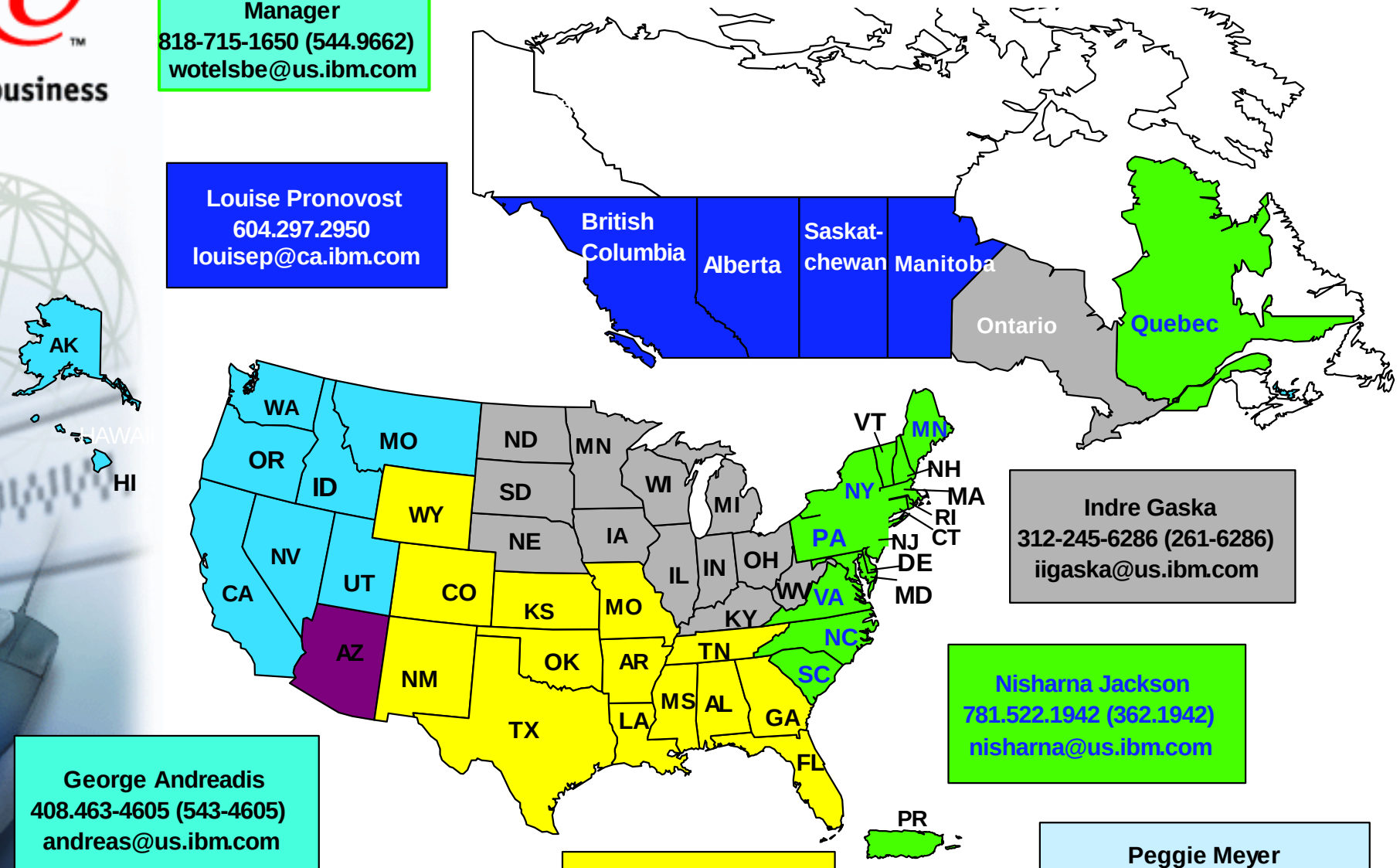

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