Mid-Market Distribution Company

HP e3000 Transition Study

Birket Foster
MB Foster Associates

Business Overview

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- Global distribution company based in North America
- Complex supply chain and order management process
- Offices in the United States and Europe
- 1200 employees, $2 billion revenue

Challenges

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- Custom-developed legacy supply chain/order management system residing on an HP e3000
  - More than 500 Suppliers
  - Order fulfillment system contains complex business rules
- Multiple system integration points, interdependencies
  - Web-based Customer and Supplier Portals
  - JD Edwards ERP suite supporting financial operations
- Manual interfaces between US and European operations
  - Separate technology environment due to acquisition
  - Limited ability to gain critical business intelligence
- Leaned toward purchasing COTS application for HPe3000 replacement; sought justification/validation

Solution: Business process mapping

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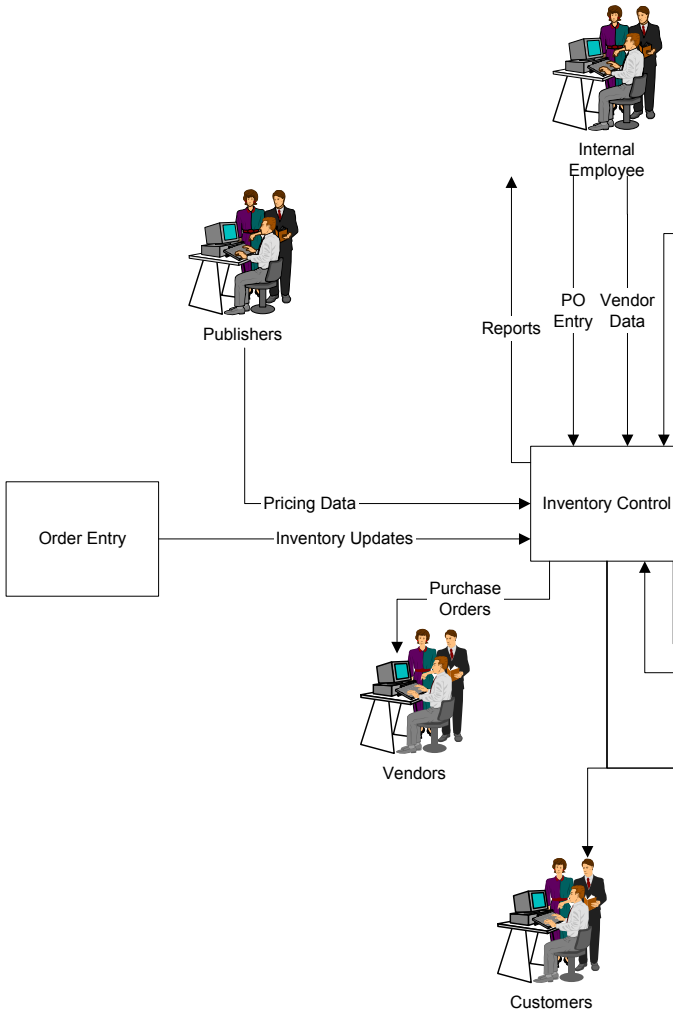

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Solution: Application topology

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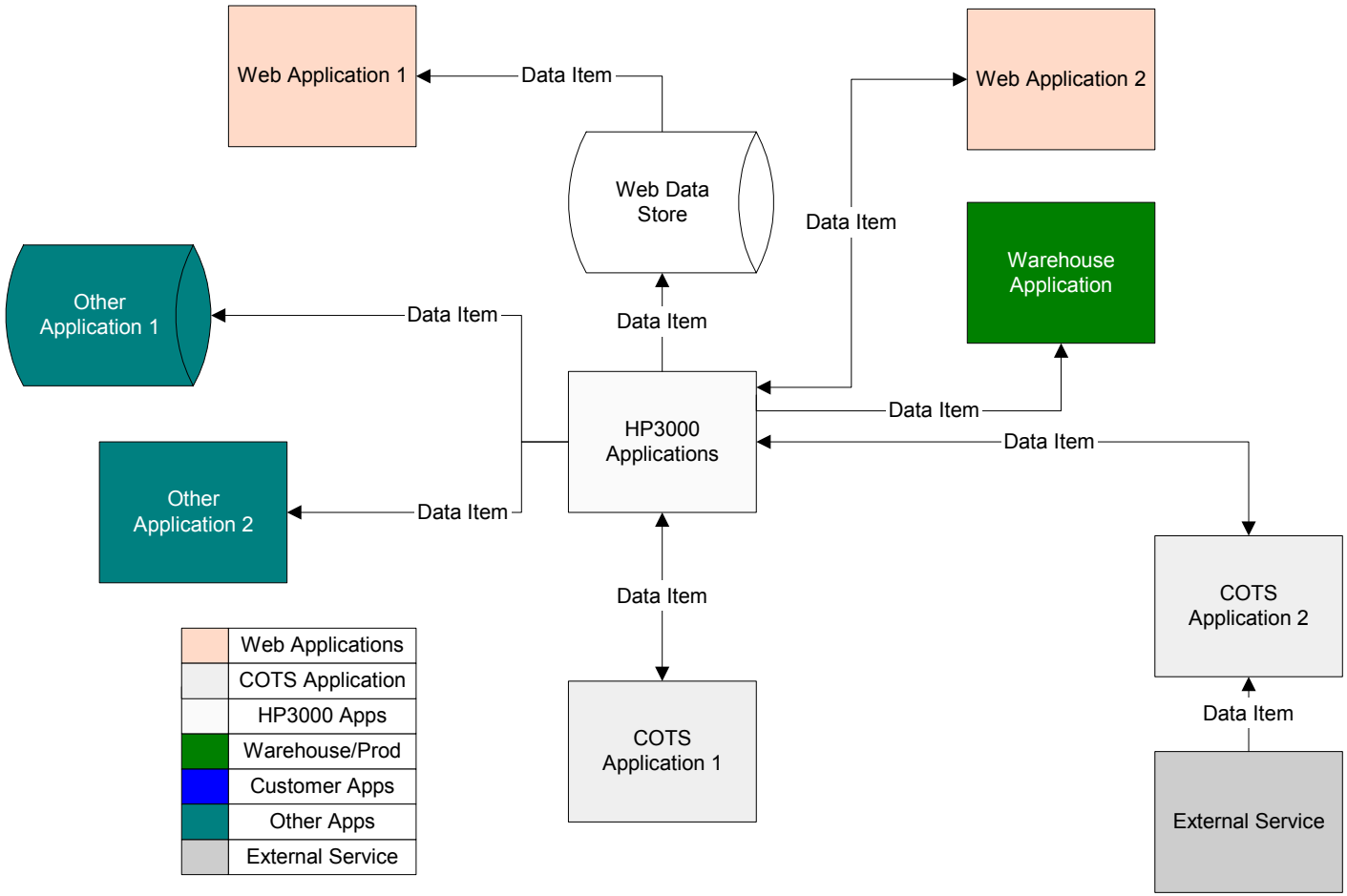

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Solution: Gap analysis

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Category	Area	Gap Summary	Condition	Business Impact
Supportability	Vendor	No Major Gaps	GREEN	None
	In-house	No Major Gaps	GREEN	None
	Reliability	No Major Gaps	GREEN	None
Sustainability	Hardware	HP3000 / MPE support ends	RED	IT Risk after 2006
	Operating System	HP3000 / MPE support ends	RED	IT Risk after 2006
	Tools	HP3000 / MPE support ends	RED	IT Risk after 2006
	Applications	HP3000 / MPE support ends	RED	IT Risk after 2006
Functionality	Meet Today's Needs - US	No Major Gaps	GREEN	None
	Meet Today's Needs - Europe	Not internationalized, no warehouse	RED	IT Costs & Efficiencies
	Handle International Business	Need to build into the application	RED	IT Costs & Efficiencies
	Inventory Control	Vendor Management	YELLOW	Product Costs
	Contract Management	No Major Gaps	GREEN	None
	Order Entry	No Major Gaps	GREEN	None
	Accounts Payable	No Major Gaps	GREEN	None
Scalability	Hardware	Resource contraints	YELLOW	IT Costs & Efficiencies
	Operating System	No Major Gaps	GREEN	None
	Tools	No Major Gaps	GREEN	None
	Applications	No Major Gaps	GREEN	None
	Network	Experiencing slow connections	RED	Customer Satisfaction
Usability	Screen Function	No Major Gaps	GREEN	None
	Business Integration	No Major Gaps	GREEN	None
	Multi-lingual Interface	Single language support	RED	Training Costs
	User Interface	Character based screen	YELLOW	Training Costs

Solution: Transition alternatives

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- STAY: Continue using current applications on the HP3000 in the US and maintain a separate infrastructure in Europe
- PORT TO UNIX, THEN ENHANCE: Port existing apps to UNIX/Oracle or DB2 environment using a migration tool or service vendors and re-engineer European Applications
- PORT TO WINDOWS, THEN ENHANCE: Port the existing applications to a Windows environment, utilizing a migration tool or service vendor and re-engineer European Applications
- BUILD: Re-engineer US and European applications into a Microsoft environment and incorporate COTS component solutions where applicable.
- BUY NEW PACKAGE, THEN CONFIGURE / CUSTOMIZE: Migrate to a new, purchased COTS ERP distribution package, configure/customize to fit business needs.

Solution: Transition evaluation

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Option	Cost To Implement	Yearly Cost	Supportability	Speed of Modification	IT Control	Interfaces	Sustainability	Hardware	Operating System	Tools	Applications	Functionality	International Support	Multiple Site/Company	Integration with COTS	CM, IC, OE, & AP	Scalability	Transaction Volume & Growth	Transaction Speed Control	Network Speed Control	Platform Independence	Usability	Screen Function	Multi-Lingual Interface	User Interface		Schedule	Cost
STAY	$2,918K - $3,456K	$440K - $530K		●	◕	●		●	◕	◔	◒		◔	◒	◒	●		◒	◕	◔	◔		◕	◒	●		◒	◒
PORT to UNIX	$2,883K - $3,341K	$399K - $473K		●	◕	●		●	◕	◔	◒		◔	◒	◒	●		◒	◕	◔	◔		◕	◒	●		◒	◕
PORT to Windows	$3,814K - $4,272K	$397K - $470K		●	●	◕		●	●	◕	●		●	●	◕	●		◒	●	●	◕	\	◕	◕	◕		◔	◔
BUILD	$2,649K - $2,958K	$439K - $487K		◒	◒	●		●	●	●	●		●	◒	●	◒		●	◕	◒	◕		◒	●	◒		◕	◕
BUY	$5,338K - $6,447K	$534K - $732K		◒	◒	●		●	●	●	●		●	●	●	◒		●	◕	◒	◕		◒	●	◒		◕	◔

●	Superior Solution
◕	Meets All Requirements
◒	Meets Some Requirements
◔	Meets Few Requirements
○	Meets No Requirements

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Solution: Architecture alternatives

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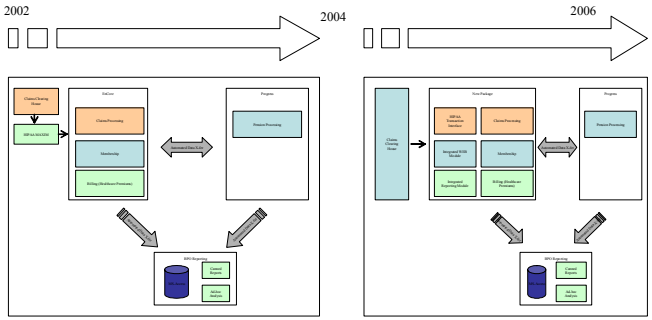
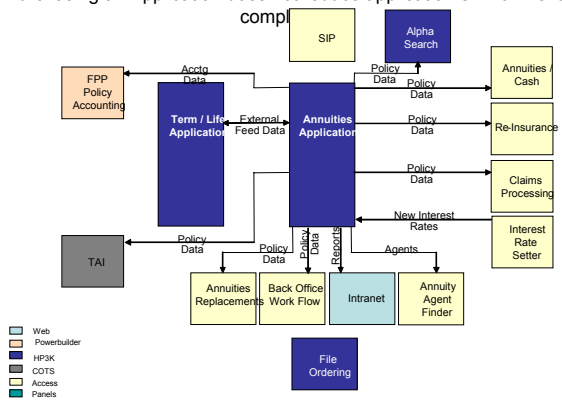
Define Each Option … STAY

Stay/Delay - Duplicating both Buy options to spread out the changes



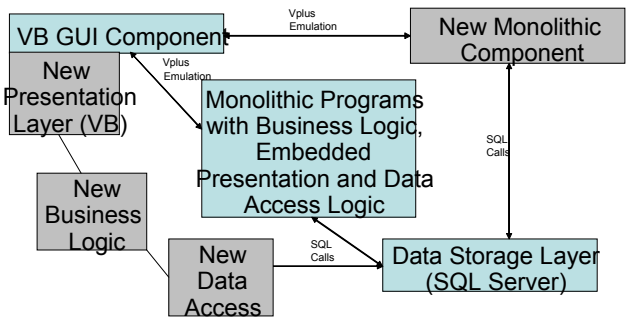
Define Each Option .BUY

Purchasing an Application does not reduce application environment compl



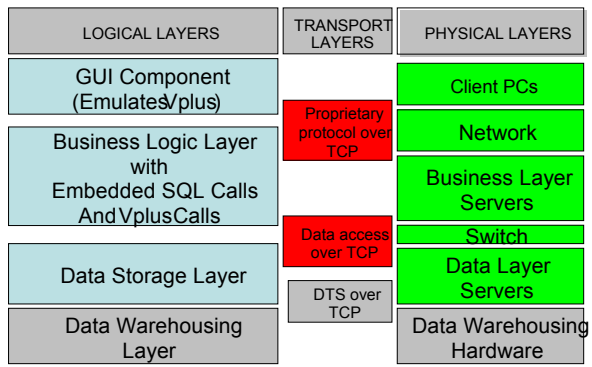
Define Each Option …PORT to UNIX

Maintenance after a Port requires either new monolithic component or new code structures



Define Each Option …PORT to Win

MBS identified the architectural layers for a Port



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Solution: Total cost of ownership

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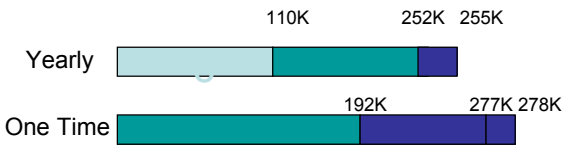
Identify Costs… Buy

If client were to move to a new package in 2003, the one-time cost would be $278,000, but would require extensive customization: $2.5M

2002	
Upgrade to 5.0	$ 18,000
TOTAL	$ 18,000
2003	
Implement New Package	$100,000
Migrate Data	$100,000
Build Progress Interfaces	$ 35,000
Implement Web Self Service	$ 25,000
TOTAL	$260,000



Identify Costs …Port to Windows

MBS estimated 3 different hardware configuration options…Option 1

Estimated Hardware, Software, and Additional Ongoing Costs

Hardware Option 1 (Dual Processor Servers)		$ 265,528
IBM pSeries 630 Model 6E4 1.0GHz POWER4		
3x36GB SCSI Drives		
2Gb RAM (4x512 DIMMS)		
AIX 3yr subscription		
Production Servers		$ 185,646
Chicago	$ 30,941	
Chicago Mirror	$ 30,941	
Chicago Sabrix Server	$ 30,941	
Paris	$ 30,941	
Paris Mirror	$ 30,941	
Chicago Sabrix Server	$ 30,941	
External Disk Array		$ 18,000
80Gb RAID 5, Redundant Power Supply		
Chicago	$ 9,000	
Paris	$ 9,000	
Test Servers		$ 30,941
Chicago	$ 30,941	
Development Servers		$ 30,941
Chicago	$ 30,941	

New On-Going Expenditures		$ 440,310
DBA Expense - mid-level	$ 85,000	
Paris based Business Analyst - mid-level	$ 65,000	
VAT - Annually Maintenance & content subscription	$100,000	
Hardware Maintenance	3yr included	
Option 1 - Software Maintenance (20% on all software purchases)	$190,310	

Software Option 1		$1,151,550
Backup Solution		$ 53,400
NetBackup (Two backup servers, 3 Clients, 6 Drives)	$ 40,400	
DB Agent (Chicago & Paris)	$ 13,000	
DB2 Enterprise Server (per processor)		$326,200
Production - (8 x $27,000)	$ 216,000	
Test - (2 x $27,000)	$ 54,000	
Development Server- (2 x $27,000)	$ 54,000	
Development - (2 x $1,100)	$ 2,200	
Search		$351,000
Omnidex (6 app servers)	$ 351,000	
Spooler		$14,370
Easy Spooler EZ0006 (x6)	$14,370	
Scheduling Tool		$ 59,000
Chicago NextGen Master License	$ 25,000	
Chicago NextGen Per Server (x 4)	$ 6,000	
Paris NextGen Master License	$ 25,000	
Paris NextGen Per Server (x2)	$ 3,000	
Forms Software		$ 34,760
Chicago Appic StarJet/StarPage (256 user license)	$ 19,800	
Paris Appic StarJet/StarPage (128 user license)	$ 14,960	
Chrystal Reports		$ 37,904
Crystal Reports Advanced Edition, English (10 users)	$ 18,952	
Crystal Reports Advanced Edition, French (10 users)	$ 18,952	
Fax		$ 600
Symantec WinFax Pro (x 6)	$ 600	
EDITran (Tie Commerce)		
Place Holder		
Development Tools		$ 39,316
VisualAge Enterprise Suite (4 x $6,829)	$ 27,316	
Fujitsu NetCobol for .NET Developer Edition (4 x $3,000)	$ 12,000	
European Business Rule Tracking		$235,000
Sabrix - Content Subscription & Software License	$ 200,000	
Sabrix - BEA Application Server	$ 5,000	
Sabrix - Oracle Server	$ 30,000	

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Solution: Project timeline

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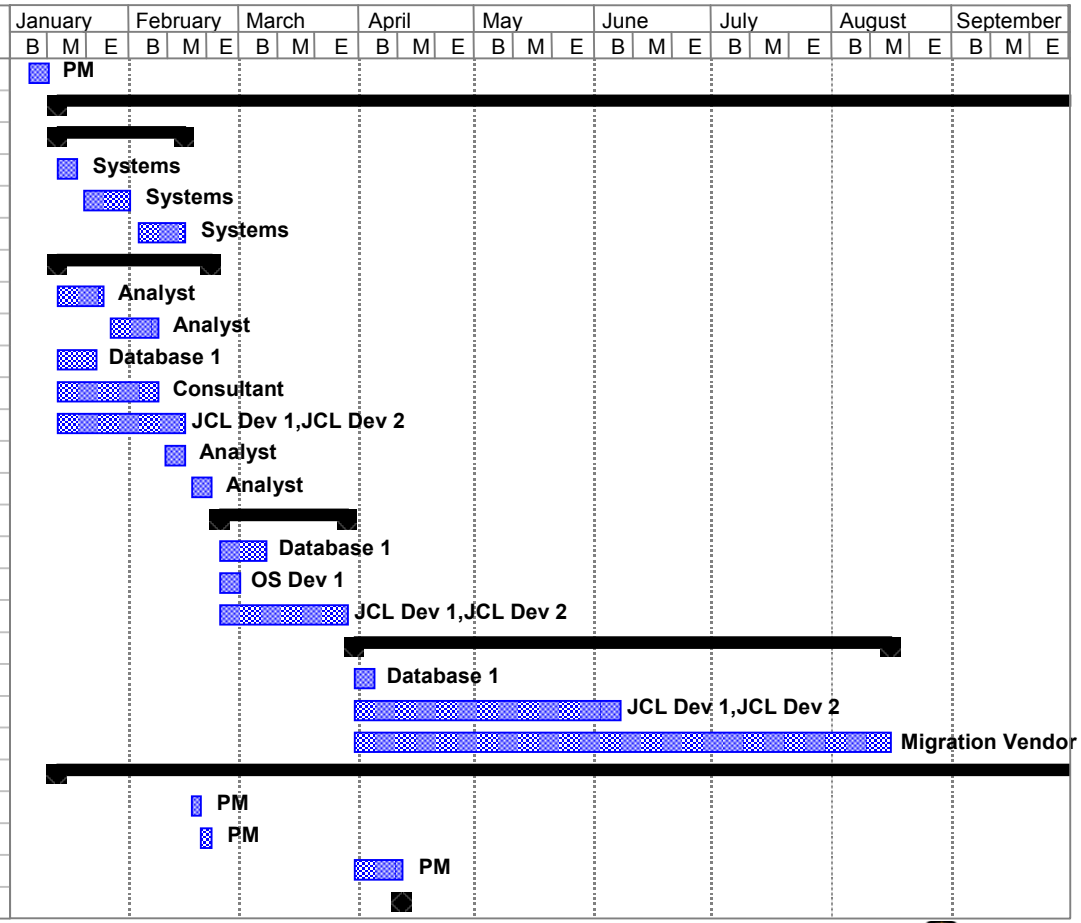
Port to Windows

ID	Task Name
1	Project Initiation
2	**Project Execution**
3	**Set Up NT Environments**
4	Buy Hardware
5	Configure Network
6	Install Tools & Frameworks
7	**Requirements Phase**
8	Document existing program structures
9	Document existing business logic
10	Document database schema
11	Develop Current Use Cases
12	Identify current JCL's
13	Identify obsolete functionality
14	Flag coupled obsolete functionality
15	**Design**
16	Tune Database (indexes, FK's, PK's)
17	Design Transport Layer
18	Design Batch Processes
19	**Construct Phase**
20	Construct Database
21	Construct Batch Files
22	Port
23	**Test Phase**
24	Assess Dev Risks
25	Define Quality Criteria
26	Develop Test Plan
27	Test Readiness Review



Lessons Learned

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- Client did not know their situation as well as they thought they did
- Stringent business review, prior to technical review, is paramount to project's success
- All available options evaluated
  - Two originally considered options discarded due to lack of alignment with future business objectives
  - Vendor evaluation revealed strengths and weaknesses relating to the architectural options and established technology standards
- Some applications will require surprisingly few modifications while others require complete re-engineering to support business changes and future direction
- COTS software products failed to meet adequate functionality without substantial ($2.5M) customization due to complex, dynamic business rules
- Long-term sustainability was demonstrated with port and re-engineer options

Business results

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- Comprehensive topology of current technical infrastructure
- Business case, technology strategy and project timeline for entire migration effort in alignment with the company's future direction
- Recommended Port using a Microsoft-centric architecture
  - Lower deployment costs and total cost of ownership
  - Meets the established technology standards of the organization
  - Integrates easily with the current supplier and customer portals
  - IT staff is able to support Microsoft architecture thereby reducing the learning curve for both the end-users and IT developers
  - Porting the application to a Microsoft architecture will allow the organization to migrate to .NET web services, enabling the code to endure future business expansions.
- Final solution protected client's strong competitive advantage while architecting the applications to incorporate state-of-the-art technologies

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MANAGED BUSINESS SOLUTIONS-10 YEARS

Interex, Encompass and HP bring you a powerful new HP World.

interex
shared knowledge • shared power

encompass
AN HP USER GROUP

hp
invent

Ceridian

HP e3000

Migration Case Study

Ceridian – Business Overview

- Leading provider of managed business solutions for human resources to Fortune 500 companies
- $1 billion in revenues

CERIDIAN

Challenges

- Need for an open, scalable, multi-tiered application architecture to keep in step with the rapid business growth being experienced
- To be in a positive position to take advantage of emerging technologies
- Y2K testing

Characterize the HP e3000 Environment

- TurboIMAGE database
- Custom built character mode user interface
  - No Vplus
- Lots of ties to other applications
  - edi, com, etc
- Y2K was part of the migration project
- Written in COBOL
  - 1200 Cobol programs containing over a million lines of code
  - 1600 include files containing 120,000 lines of code
  - Cognos and MPEX

Solution - Planning to Migrate

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- Began planning in May of 1997
- Migration blueprint
- Began migration in August of 1997
- Took two and a half years to complete the entire project
- Learning “on the job” as the project proceeded
- Huge project
- Mainframe type system

Solution

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- HP services' consulting
- Conversion from the HP e3000 997/600 and 987/200 to 2 v-class HP 9000 servers with HP-UX 11
- One HP 9000 backup server in Las Vegas
- Powerhouse on MPE converted to Powerhouse on HP-UX
- HP OpenView Network Node Manager
- IT Operations

Solution - Database

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- Oracle
- Taurus/Quest Bridgeware tool
- 206 different IMAGE datasets across 10 databases
- 400 million records totalling 38 GB had to be moved
- Ran HP 3000 and HP 9000 in parallel for most of the two year project
- Iteratively tested bulk moves from the HP 3000. Once the logic was proven, the logic for moving incremental HP 3000 data changes was tested
- BridgeWare moved and kept in synch some 38 GB of critical data, moving up to 17 million records per hour
- More problems with data cleansing than anticipated

Solution - Compiler and UI

- Microfocus COBOL
  - HP-UX based compiler
  - Industry leader
- User Interface
  - Intent was to convert to Powerbuilder
  - Instead, rewrote character mode UI for UNIX
  - UI coded in one routine that was shared by other online programs
    - Modular design made for easier port
    - 3-tier architecture

3GL Compilers (Cobol)

- Microfocus COBOL
  - Largest market share
  - Most costly
  - Native and portability options
- ACUCOBOL-GT
  - Supports HP COBOL and runs on HP e3000
  - Very popular with HP e3000 prospects
  - Portability and GUI interfaces
- Fujitsu COBOL
  - Not well known
  - Very cheap
  - Native solution only

Things to Consider

- COBOL Syntax
  - Reserved Words
  - Copy libs
  - $INCLUDE
  - Macro expansion
- Reserved Words
  - For example: using “window” as a data item name works with HP COBOL
    - AcuCOBOL uses “window” as a reserved word
    - With compile options you can turn off this reserved word, allowing you to leave the item name

Things to Consider

- Externals
  - Passing of parm and info in run command\
  - Entry points
  - CIERROR
  - Job/session environment (e.g. Temp files)
- File system
  - File naming (FILE.GROUP.ACCT)
  - MPE file types
  - Record structures
  - Sharing file IDs (FDs as Intrinsic parameters)
  - Sort files
  - KSAM files
  - FILE equations.
  - Temporary files

Solution - Testing

- Unit testing done by comparing output of ported and unported applications.
- Parallel testing

Lessons Learned

- HP project management reduced project slippage due to the complexity of the migration
- Not all the code and JCL were used or needed, analysis would have avoided some of the unnecessary conversion
- Oracle
  - Image wrapper technology (home-grown) used to ease migration
  - Simplified testing
  - Performance penalty

Lessons Learned - Performance Penalty

- Overall performance was not affected
  - Running on faster machines
  - No 1-1 comparison
- Not a serious impediment to the project

Lessons Learned – Performance and Reliability

- HP e3000 is a very efficient transaction processing engine
  - No performance problems after the port
  - Created more of a networked system
  - Online app ran on dedicated K-class boxes
  - V-class used for database
- HP-UX every bit as reliable as the HP e3000

Lessons Learned – Project Management

- Between 70-170 people working on the project
- Project management becomes critical
- External interdependencies
  - "Spreadsheet tricks"
  - Business processes (often less well documented)

Lessons Learned – MPE Emulators

- Not considered at the time
- Advice to anybody who's approaching a transition project
  - Watch for dependencies on MPE/iX that are not documented
  - Looking at the list of applications isn't enough
  - Ended up creating an MPE-like shell around UNIX

Lessons Learned – Don't Change

- Enhancing your software while you're porting?
- "The ideal way to do a port is just do it and don't change anything!"
  - Makes testing a whole lot easier
  - "If you can match pre-port and post-port output, testing becomes fairly mindless"

Technical Benefits of Porting

- "It will be harder than you think, but when you're done it will be more worthwhile than you think."
  - Open platform benefits
    - More choices
    - Latest version of Oracle
    - Mainstream releases

Business Results

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- Improved performance
- Greater scalability – 30% better than 3000
- Better integration capabilities
- Internet access

"Ceridian's migration from the HP e3000 to the HP 9000 was a success! What we did was the right thing to do. Ceridian is much better off than it was before... the HP people were great and they built a solid team that stuck it out until the project was completed."

David Goodman
Senior Vice President
of Product Development
for Ceridian

Hitachi High Technologies America

HP e3000

Migration Case Study

Business Overview

hp e3000 transition solutions

- Offers semiconductor manufacturing equipment, analytical instrumentation, scientific instruments, bio-related products, industrial equipment, information equipment, electronic devices, and electronic and industrial materials
- San Jose, CA
- www.hitachi-hta.com

Characteristics of IT Environment

- Key mission-critical manufacturing application (ManMan) running on the HP e3000 has been migrated to SAP as per company-wide strategy.
- Historical data still being expensively maintained on HP e3000 server

Migration Challenges

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- To find a cost-effective solution to migrate historical data stored in TurboImage databases and KSAM files off the HP e3000 platform.

Solution

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- Porting of TurboImage and KSAM databases to SQL Server on Windows using Speedware's DBmotion solution.

About DBmotion

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- Database migration tool specifically designed to port TurboImage, KSAM and flat-file databases on the HP e3000 to MS SQL Server or Oracle.
- Automates the conversion process, saving valuable time and effort over manual conversion and reducing the risk of error.

Benefits Enjoyed by Hitachi

- Reduced cost of maintaining historical data.
- Seamless integration and access to company-wide data.
- Access to a wide variety of reporting tools on Windows platform.

Lessons Learned

- Maintaining historical data does not need to be expensive.
- Database migration can be very simple and cost-effective.
- Major Data Warehouse project not necessary

Resources

- Company performed this project on its own, using tools from Speedware.
- Only 1 technical resource was dedicated to this project on a part-time basis.
- Minimal expense necessary.

Results

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- Hitachi is pleased with how easily and inexpensively its historical data was ported and is being maintained.

"DBmotion made the process of moving historical data from the expensive HP e3000 to a less expensive and more manageable environment very simple. The software is very easy to use and I would rate Speedware's technical support group extremely high."

Mike Janjigian
MIS Manager
Hitachi High Technologies America

Next Steps

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- To investigate and adopt the most suitable data reporting solution from the wealth of tools available for the Windows platform.

Alternative Solutions

- Database choices
  - Oracle (UNIX / WINDOWS)
  - SQL Server (Windows)
  - DB2 (UNIX / Windows)
  - Sybase (UNIX)
  - Informix (UNIX / Windows)
  - Other less suitable options (for Hitachi):
    - Eloquence (UNIX / Windows)
    - PostgreSQL/MySQL (UNIX / Windows)
    - C-ISAM/D-ISAM (UNIX / Windows)
    - Flat (UNIX / Windows)
    - Others…

Alternative Solutions

- Database Migration Tools for TurboImage
  - Quest/Taurus – Bridgeware
  - Speedware – DBmotion
  - MB Foster – UDACentral
  - OmniSolutions – SqlLink 3000
  - And other bridges (XenoBridge, Robelle, DISC, WRQ, iMaxSoft, VitalSoft, etc.)
- App migration tools / solutions that offer some level of DB migration
  - Neartek – AMXW
  - Ordina Denkart – ViaNova 3000
  - Transoft
  - Sungard BI-Tech – Transport

BridgeWare co-product of Quest Software and Taurus Software

hp e3000 transition solutions

powered by BridgeWare

co-product of Quest Software & Taurus Software

- Customer migrations
- Staged migration = no user downtime
- Fast map and load data with GUI
- No database expertise required
- Highlights “dirty data”
- Complex transformations
- Real-time MPE data capture
- Bi-directional, high speed data movement

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BridgeWare Process

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BridgeWare HP e3000 Migration to Open Systems

Source Database

TurboImage, KSAM, Allbase, Oracle, Fixed, Flat, Text, CSV Files, Freeze Files

Oracle, SQL, DB2, Fixed, Flat, Text, CSV Files, Freeze Files

Target Database

Real-time DELTA REFRESHES

FILTER

TRANSFORMATION

MAP

MANIPULATE

CLEANSE

LOAD

VALIDATE

powered by BridgeWare

co-product of Quest Software & Taurus Software

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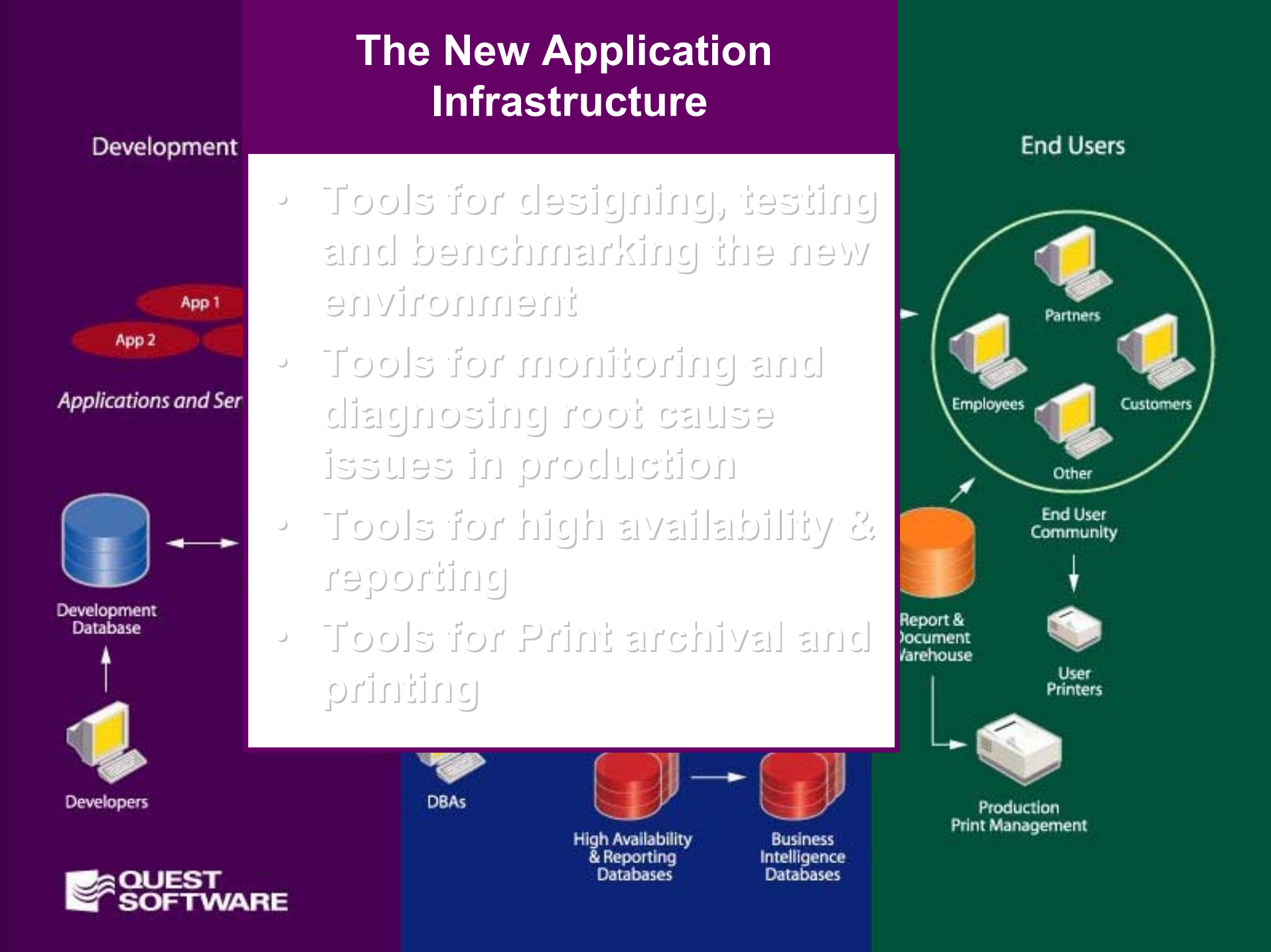
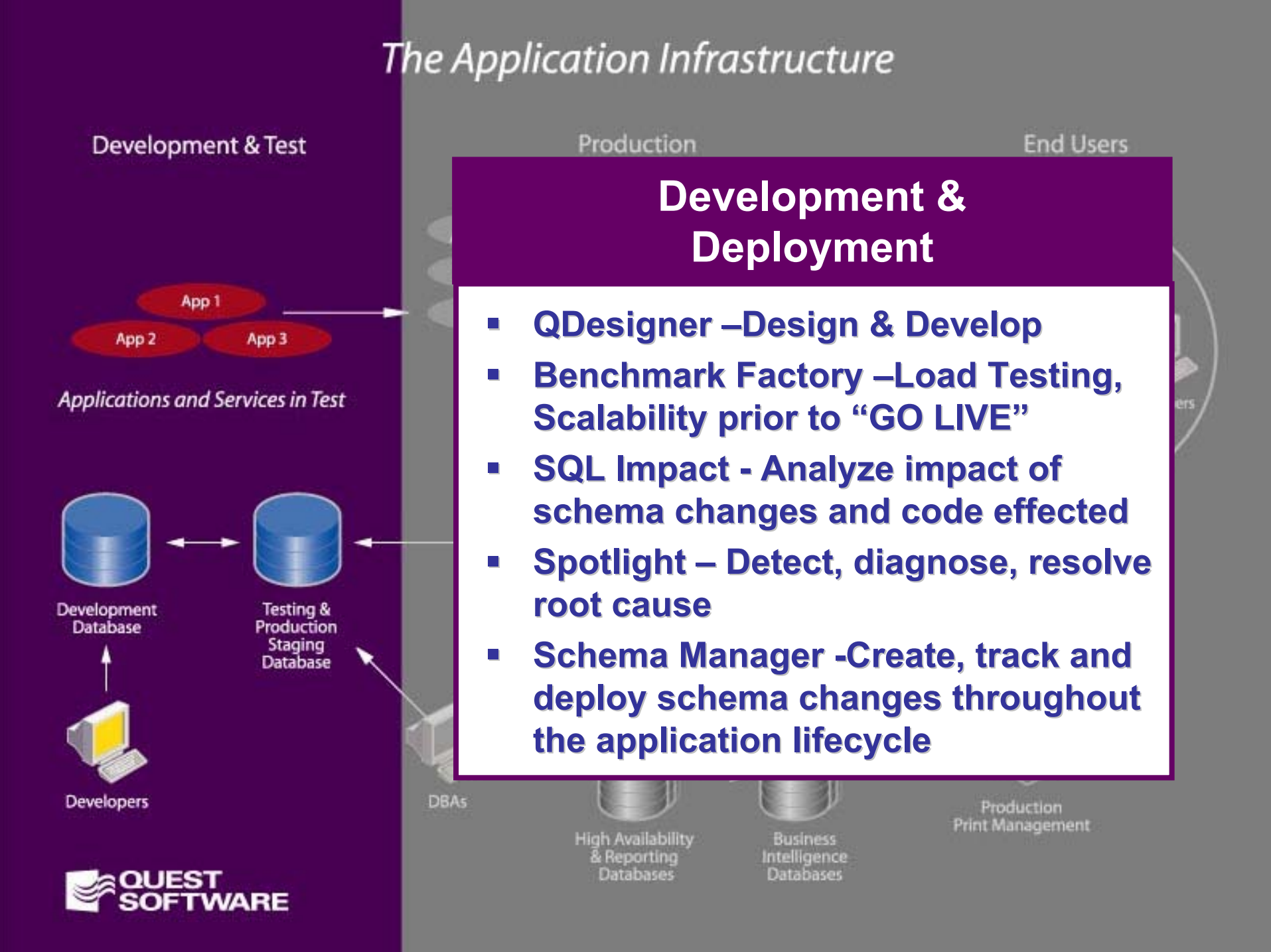
The New Application Infrastructure

- Tools for designing, testing and benchmarking the new environment
- Tools for monitoring and diagnosing root cause issues in production
- Tools for high availability & reporting
- Tools for Print archival and printing





Development & Deployment

- QDesigner –Design & Develop
- Benchmark Factory –Load Testing, Scalability prior to “GO LIVE”
- SQL Impact - Analyze impact of schema changes and code effected
- Spotlight – Detect, diagnose, resolve root cause
- Schema Manager -Create, track and deploy schema changes throughout the application lifecycle

DBmotion

hp e3000 transition solutions

SPEEDWARE

Years of migration experience in one powerful tool

- Benefits
  - Saves significant time by automating much of the process
  - Designed for HP e3000 databases
  - Easily fits into your migration budget with its affordable price
- Features
  - Supports Image/Ksam/Flat to Oracle (any server) and SQL Server. Also automates Omnidex -> OmniAccess.
  - Easy to use GUI interface filled with wizards
  - Automates database structure replication
  - Creates target database
  - Offers complete control of global naming and datatype adjustments
  - Provides default structure and datatype mapping
  - Automates all data transfer and conversion
  - Estimates time to copy rows of tables and whole databases
  - Supports multiple simultaneous database migrations with detachable client
  - Handles arrays, nulls, dates and Omnidex!
  - Merge Databases and files into one target Database
  - Provides reporting features to better understand database files and items

DBMotion - [Database Definition]

File Edit View Tools Window Help

Source - Columns - EducTe

Categorized

Property	Value
Name	CRS-CODE
Physical	
Data Typ	
Data Type	X4
Key Options	
Key Type	STANDARD
Primary	YES
Unique	YES
Sort Item	
Master	

Source Database:

- Bases
  - EducTest
    - Tables
      - CRSMASTER
        - Columns
          - CRS-CODE
          - CREDITS
          - CURRENT-PRICE
          - INST-QUAL-NO
          - MAX-STUDENTS
          - NAME
          - PASSING-GRADE
          - PREREQ-CRS-CODE
          - STATUS
          - TOTAL-HRS
        - Indexes
      - INSTRUCTORS
        - Columns
          - INSTRUCTOR-NO
          - ADDR-CITY
          - ADDR-POSTAL
          - ADDR-STATE
          - ADDR-STREET
          - NAME
          - QUAL-ARRAY
          - SALARY
        - Indexes
      - STUDENT-MASTER

Target Database:

- CRSMASTER
  - Columns
    - CRS-CODE
    - CREDITS
    - CURRENT-PRICE
    - INST-QUAL-NO
    - MAX-STUDENTS
    - NAME
    - PASSING-GRADE
    - PREREQ-CRS-CODE
    - STATUS
    - TOTAL-HRS
  - Indexes
- INSTRUCTORS
  - Columns
    - INSTRUCTOR-NO
    - ADDR-CITY
    - ADDR-POSTAL-CODE
    - ADDR-STATE

Target - Columns - EducTest.CRSMAS

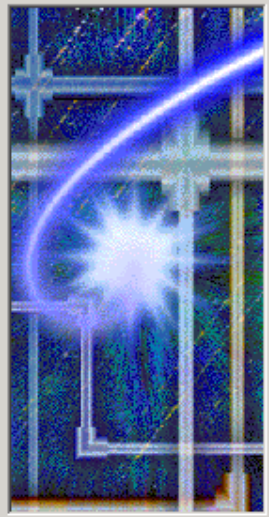
Categorized

Property	Value
Name	CRS-CODE
Physical	
Null Support	NO
Data Type Op	
Data Type	CHAR(4)
Type	CHAR(p)
Precision	4
Scale	0
Key Options	
Key Type	STANDARD
Primary	YES
Unique	YES
Foreign File	
Foreign Item	

11/09/02 02:16:07 PM: Update the Name property of colum
11/09/02 02:16:07 PM: Update the Name property of colum
11/09/02 02:16:07 PM: Update the Name property of colum
11/09/02 02:16:07 PM: Update the Name property of colum
11/09/02 02:16:07 PM: Update the Name property of colum
11/09/02 02:16:07 PM: Update the Name property of colum
11/09/02 02:16:07 PM: Update the Name property of colum
11/09/02 02:16:07 PM: Update the Name property of colum
11/09/02 02:16:07 PM: Update the Name property of colum

Log Window | Find Name or Datatype 1 | Find Name or Datatype 2

Find and Replace Wizard - Adjustment Confirmation



Confirm the objects you want to change:

	Source Name	Source Datatype	Target Name	Target Datatype	New Target Name	New Target Datatype
☑	CRS-CODE	X4	CRS-CODE	CHAR(4)	CRS_CODE	VARCHAR(30)
☑	CREDITS	I	CREDITS	SMALLINT	CREDITS	INT
☑	CURRENT-PRI	I2	CURRENT-	INT	CURRENT_	INT
☑	INST-QUAL-NO	I2	INST-QUA	INT	INST_QUAL	INT
☑	MAX-STUDENT	I	MAX-STUD	SMALLINT	MAX_STUD	INT
☑	NAME	X30	NAME	CHAR(30)	NAME	VARCHAR(30)
☑	PASSING-GRA	I	PASSING-	TEXT	PASSING_	INT
☑	PREREQ-CRS-C	X4	PREREQ-C	CHAR(4)	PREREQ_C	VARCHAR(30)
☑	STATUS	X2	STATUS	CHAR(2)	STATUS	VARCHAR(30)
☑	TOTAL-HRS	I	TOTAL-HR	SMALLINT	TOTAL_HR	INT

Select All | Deselect All

Help | < Back | Finish | Cancel

MB Foster UDACentral

- MB Foster's UDACentral provides migration capabilities that include :
  - Database Explorer
  - JDBC Explorer
  - Database Converter
  - Data Import/Export with conversion
  - Data Editor
  - Dynamic SQL Supporter
  - Distributed Query Execution

MB Foster UDACentral

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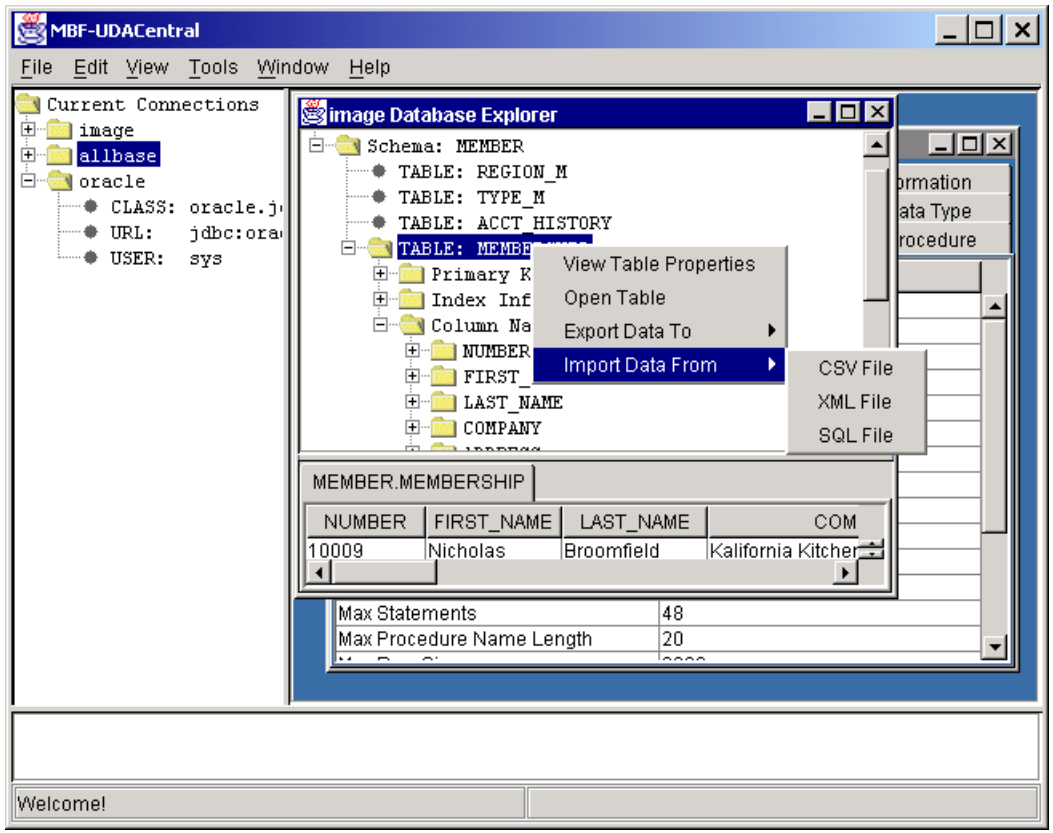

Import/Export Capabilities :

You can import/export data in a number of formats, including XML, CSV, HTML, eMail and SQL.

MB Foster UDACentral

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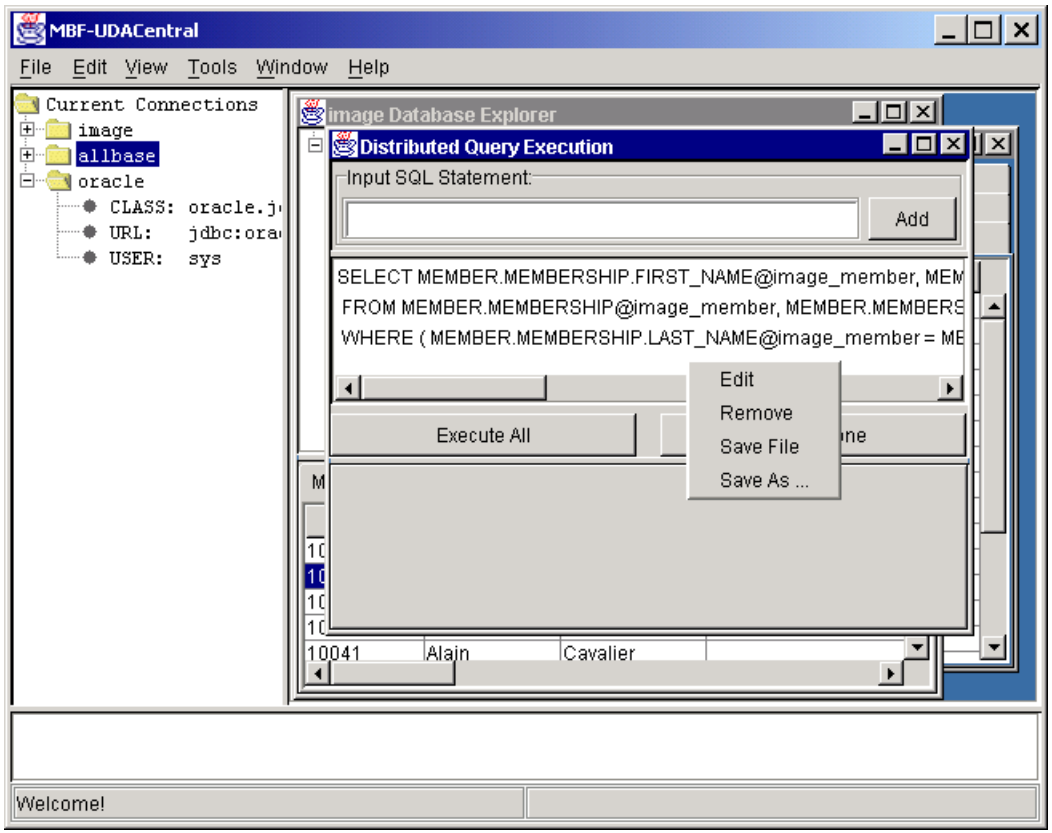

Distributed Query Execution allows you to create, edit, execute and save distributed SQL queries. You can also re-use queries from the Distributed Query Wizard. Results can be exported in a number of formats.

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SPEEDWARE

hp e3000

SqlLink3000

hp e3000 transition solutions

- SqlLink3000 allows you to access any ODBC compliant SQL database from your HPe3000.
- SqlLink3000 uses Microsoft ADO and TCP/IP to access your SQL data.
- SqlQuery, an interactive ‘query-like’ tool is included, so you can access your data without programming.
- Data server is multi-threaded, giving the highest level of performance.

OmniSolutions, Inc.

GUI INNOVATIONS

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SPEEDWARE

hp e3000

SqlLink3000

hp e3000 transition solutions

- SqlLink3000 features:
- Read/Write access to your database
- Supports Insert/Update/Delete/Exec statements
- Supports Views
- Supports stored procedures
- All the above available from SqlQuery
- Migrate your data to SQL using GUI3000, and
- then access it from your HPe3000.

OmniSolutions, Inc.

GUI INNOVATIONS

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SPEEDWARE

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Eloquence Lessons Learned

HPe3000

Transition Study

Case Study

A process for deciding database choices

- Identify the application characteristics
  - What are the online transactions
  - What is batch
  - What is the growth rate
- Inventory skill sets DBA, SQL, DB Design
  - Staff
  - Extended team
  - Understand recruit/retain strategy
- Can you maintain and design Image?

Challenges

- Scalability
  - Concurrent users vs. dbopens
    - 500 concurrent user limit for best performance
  - Size matters
    - ~500GB is limit on size
    - Future growth up to 32TB
    - 2048 data items
    - 500 datasets
    - 64/16 paths
    - Entry length 5120 bytes
- Is there use of Omnidex/Superdex/TPI?
- What is the test environment?

Eloquence overview

hp e3000 transition solutions

- Excellent compatibility and performance for IMAGE based applications
- Cost effective
- Available on HP-UX, Linux and Windows
- Proven solution available since 1990
- About 2500+ installations worldwide
- Used by about 60+ VARs / ISVs worldwide
- Covers a wide range of installations from a single user to a few hundred concurrent users

Company overview

hp e3000 transition solutions

- Eloquence is a product of Marxmeier Software AG, Germany
- Support is available from Marxmeier and support partners worldwide
- Eloquence is available on the HP-UX, Linux and Windows platform

IMAGE compatibility

- All TurboIMAGE intrinsics are supported and behave identical
- TurboIMAGE data can typically be ported with no or only minor changes

Cost effective

- Eloquence saves considerable time and effort in the migration process and allows you to focus on other tasks
- Eloquence is easy to manage
  - No need for a dba
  - Retains existing knowledge
- Eloquence is priced attractively

Complete package

- The Eloquence database comes with
  - Comprehensive set of database utilities
  - Structural maintenance
  - Integrated indexing (TPI subset)
  - On-line backup
  - MPE migration tools

Eloquence environment

- Eloquence is supported by a wide range of HP e3000 tools, e.g.
  - Cognos Powerhouse (Beta 8.43)
  - MBFoster UDALink (ODBC & JDBC)
  - Speedware (7.08.01)
  - SUPRTOOL

Typical deployments

- Eloquence is typically used to implement vertical and customer specific solutions
- Solutions based on Eloquence include
  - ERP, Order Management, Material Management
  - Financial Accounting / Payroll
  - Civil Services,
  - Financial Services, ...

Scenario 1

- ISV/Service Bureau
  - 3 HP e3000's
  - Accounting Application
  - Low user count
  - Has Image knowledgeable staff
    - Design
    - Maintenance
    - Programming

Scenario 1

- Debated platform
  - Wanted never to be proprietary again!
    - This eliminated Windows & HP-UX
  - Chose Linux
    - Which Linux?
    - RedHat – most available in North America
  - Training requirement
    - Systems – choosing modules from the distribution
    - OPS
    - Programming
    - General “Unix” like environment

Solution 1

- Focus on low impact migration (cost and change)
  - Stay COBOL
  - Stay IMAGE
- Looked at COBOL – decided to try KOBOL
  - Low Price
  - Good for experiment
  - Response time on support slow
  - Compiler is there for 99% of what they need
  - The bugs are being fixed
- Looked at database
  - Chose Eloquence
    - Price
    - MBFoster support

Solution 1 status

- Working slowly - sidetracked
  - Waiting for KOBOL answers
  - Revenue generation is a priority
  - Waiting for RedHat 9 for Clustering Software
    - RedHat is putting 7 and 8 through EOL process

Lessons learned

- Need a plan with a deadline
- Need a budget
  - Part of a plan
  - Hard to figure out what will cost otherwise
  - Helps planning cashflow
- No sense of urgency means start and stop activities
  - Adds 2 days to pick up task again
  - Adds 1 day for stop to note the issues
    - Usually forget a few
- Price sensitivity vs value of time
  - Task continuity
  - Support is worth money – there is value
- More education earlier

Scenario 2

- Merger history
- COBOL/IMAGE/custom screens
- 100 Users
- Manufacturing, purchasing & accounting
- Use outside consultants to maintain

Solution 2

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- Moving to HP-UX
  - Know and trust HP for OS
  - Like the instant ignition program
  - Liked the lowered cost of maintenance
- Keeping COBOL
- Consultant have Image Skills
  - 15 year relationship
  - Company not an individual

Current status

- For sale
  - Causes budget freeze
  - Executive sponsor aware of timing issue
    - Will go ahead this fall as insurance scenario
    - Don’t want to be doing this in the rushhour

Summary slide

- Eloquence database is a good choice when:
  - There are IMAGE skills in your team
  - You want a low impact migration
    - Minimal change
    - “Emulated Environment”
    - Less risk & faster because less change
  - Eloquence is to be temporary stopping point
    - Learn/hire for ORACLE or other RDBMS
  - You have limited budget
  - Have a low number of users

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