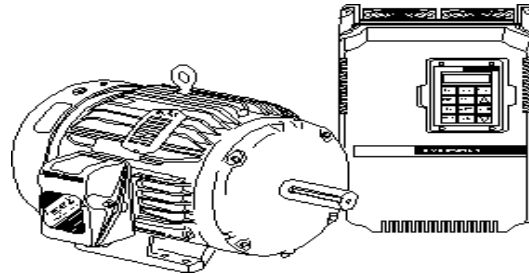BALDOR®

A MEMBER OF THE ABB GROUP

Designing Baldor's System z SAP solution

SAP

THE BEST RUN BUSINESSES RUN SAP

Mark Shackelford
VP - Information Services

June 11th, 2012

BALDOR

Baldor's Mission Statement

BALDOR is to be the best
(as determined by our customers) marketers,
designers and manufacturers of industrial electric motors,
mechanical power transmission products, drives, and generators.

- To think of value to our customers as,

$$V_p = \frac{Q_p \text{ x } S_p}{C \text{ x } T}$$

BALDOR

The Company

Ft Smith, Arkansas

- 2.1B in Revenue in 2011
- 90 Year Old Company
- Global Headquarters in Fort Smith, AR
- 26 U.S. Mfg. Plants, Bristol UK, Mexico and China
- 50 North American Sales Office's
- Over 20 International Sales Offices
- Sales in over 70 countries
- Global SAP Implementation in Fort Smith, AR
- Acquired last year by Industrial giant ABB in Switzerland

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Key Challenges facing CIO's today (1 of 3)

- Business Growth – Do more with the same

- Outside Pressures
  Cloud Computing
  Software as a Service (SaaS)
  Eliminate the Mainframe (I read about this in .....)

- Regulations / Security
  Sarbanes-Oxley
  HIPAA

- Service Levels (Availability and Reliability)

- Aging Applications

BALDOR®

- Cost Reductions
  People - Productivity
  Hardware Maintenance
  Software Maintenance
  Electrical Power Consumption
  Cooling
  Floor Space

- Alignment of I.T. Department with the Business

- Innovation

- Flexible

- Global Business

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Key Challenges facing CIO's today (3 of 3)

- Complexities
  100's or 1000's of applications
  100's or 1000's of servers
  Network Infrastructure
  Mergers and Acquistions
  Disaster Recovery
  Server Backup's
  Capacity on Demand
  Under Utilization of Servers
  Provisioning of Servers

- Greening of the datacenter

BALDOR®

Technology Vision…..

- <u>One</u> hardware platform, <u>One</u> database, and <u>One</u> business system

   #   #   #

DB2. Information Management Software

SAP

THE BEST RUN BUSINESSES RUN SAP

- Hardware Platform   - z-Series, z/OS, z/VM, z-Linux (SUSE)
- Database   - z-DB2 for z-Series
- Business System   - SAP Business Suite

BALDOR

SAP 3 Tier Client Server Architecture

Same Machine – Single z-196

Hipersock ets

Lan/Wan

Presentation
Layer
(XP,2000,Mac,Linu
x)

Application
Server
z-Linux

z/OS – z/DB2
Database

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Mainframe Environment

- IBM System z196 and z10
- z/OS partitions   2 Production, 1 Test
- z/VM partitions   1 Production, 1 Test
- 78 z/Linux Partitions
- 3 Native Partitions
  SAP Central Instance
  SAP Batch
  NFS (Network File System Server)
- All applications are SAP
  ERP, Business Intelligence, Business Objects, CRM, PLM, SCM, GTS, Portal, ESS, MSS

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Consolidation Summary

- 3 System Z Systems down to 1

- 12 Large P-Series

- Over 50 Windows Systems

- 6 Very Large Sun Servers

- 4 HP 3000 servers

- 10 I-Series

- All consolidated to 1 System Z196

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Easy to Grow

- Bought our largest competitor in 2007
- Was able to migrate all workload to System Z
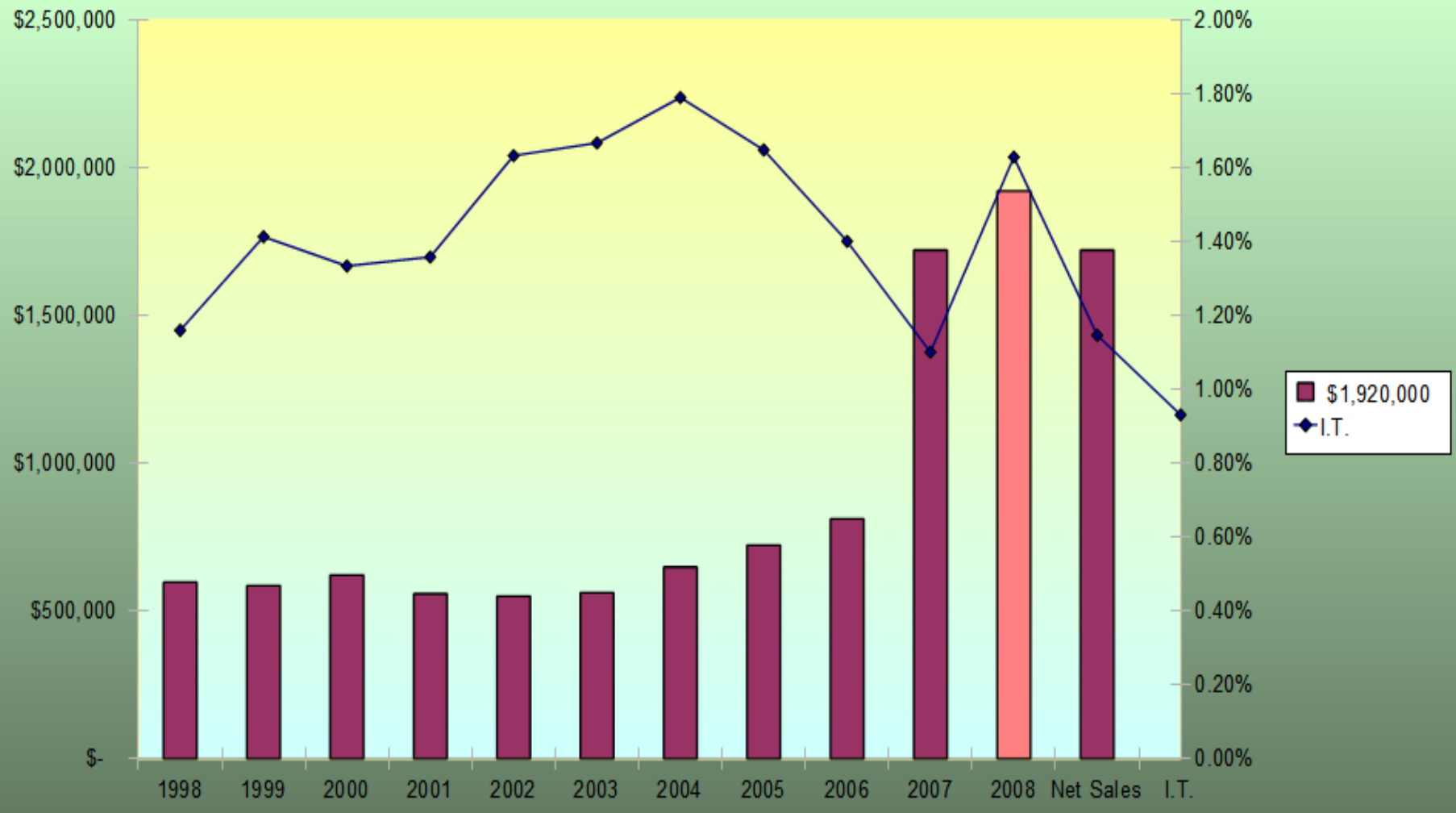- Savings of over $10M

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Complex Solutions

- Supporting many different kinds of software and development languages

- Network Infrastructure and Speed problematic

- Interfaces, bridges, batch schedule, downtime

- Baldor Solution: One Application (SAP)
                     One Hardware Platform (System Z)
                     One Database (DB2 on Z)

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Lack of Capital / Cash

- Overcoming large expenditure for System Z

- Other platforms are small expenditures that get hidden

- Work with finance folks so that System Z becomes hardware as a service internally.

- Flexible Leasing – Step Leases

- Elimination of other HW/SW

- Baldor Solution: Flexible Leasing

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Net Sales vs. I.T. Percentage of Sales

Sizing

- 5300 Users
- Average of 1 million Transactions a Day
- Average of 1,350 Scheduled Batch Jobs a Day (SAP & z/OS)
- End User Average Response Time of Less than 1 Second
- SAP Database Size is 3.1 Terabyte
- 260 Terabytes of DS8000 Storage
- Two z/DB2 Data Sharing images
- 78 z/Linux images

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Outside Pressures

- Ten's of Thousand of Solutions are out there

- You have to choose what you can support and is economical

- Your executives love to be sold

- You have to be the internal salesman

- No cloud, No SaaS, use your System Z

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Service Levels

- Z in System Z stands for Zero downtime

- I take IBM for their word

- Consolidated to 1 System z in 2005

- Response time less than ¾'s of a second

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Aging Applications

- Old Packages

- Old home grown (Cobol, RPG, Assembler, Powerbuilder, 5 different query tools, ...)

- All Replaced

- Linux provides a standard environment with all the latest tools (C++, Java, Apache, ...)

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Cost Reductions

- Jobs re-assigned   Eliminated Operations Staff

- Elimination of 4 hardware platforms

- Elimination of underutilized servers

- Elimination of many software packages (Maintenance!!!)

- 60%+ reduction in electrical consumption (Green)

- 50%+ reduction in cooling (Green)

- 6000 SqFt down to less than 3000 SqFt

- 80% Reduction in Network Costs

- Group Capacity Software Reductions (z/OS)

- All applications run on IFL's for reduced software/hardware pricing

- zIIP's fully utilized

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Alignment of I.T. Dept with the Business

- 90% Maintenance to 90% new business functions/dev

- Relationship and trust developed with C-Level exec's

- Executive Review meeting dictates what we work on, NOT I.T.

- Ability to meet business demands is at an all time high
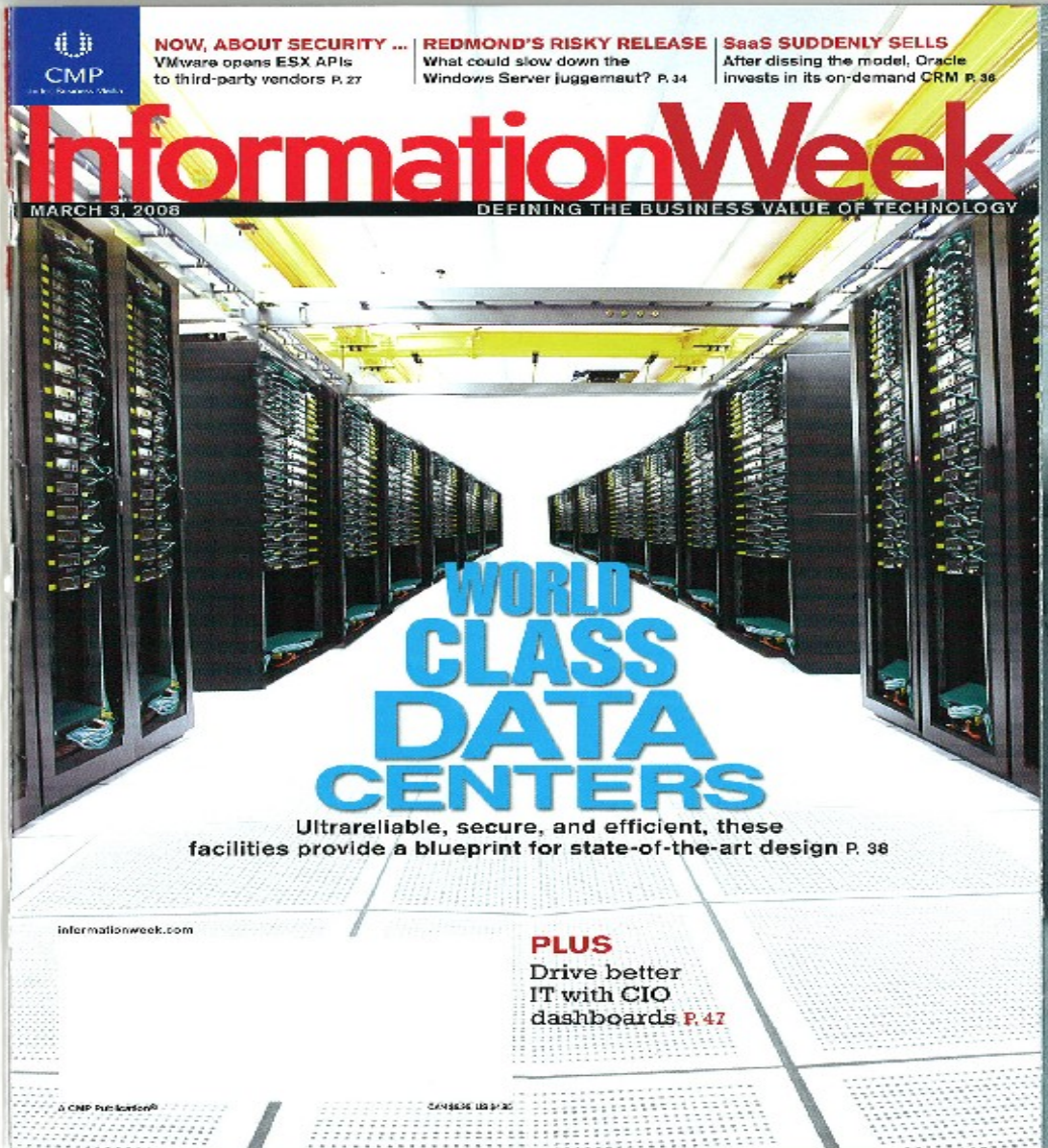
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Innovation / Flexible / Global Business

- Linux is open

- Allows for innovative ideas

- Allows for flexibility in applications

- Mergers and Acquisitions

- Languages and Currencies

- College grad's are trained in Linux

BALDOR

Complexities Eliminated

- One Server   System Z

- One Integrated Application

- Operations completely automated

- Network simplified/fast with Hipersockets

- Disaster Recovery Simplified and actually works

- One consolidated backup system with robotic tape library

- Capacity on Demand built in

- Redundancy built in

- Provisioning of new Linux server in less than 15 minutes

- No underutilized servers

- All File Serving using SAMBA on Linux on System Z

BALDOR®

World Class Data Center

World Class Data Center - Baldor

Summary

- System Z is the platform of choice for Baldor
- Almost unlimited scalability
- Lowest Risk
- Most Flexible
- Best Total Cost of Ownership
- Best security. Best availability. Best reliability. Best performance
- Linux at it's best!
- Best for Baldor   Best for me!
- To be the best……

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Questions?