

HP e3000 Migration Success Stories



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Americas HP e3000
Migration Center Manager

Transitioning applications



- Choosing one of the five options
 - Replace
 - Rewrite
 - Migrate
 - Retire
 - Leave on MPE

- Questions to ask about your business plans
 - How much will the application and your needs grow?
 - How native do you want your application to be when it's done?
 - How long will it take to transition?

A close-up photograph of a person's hand reaching through a dark metal grid to touch a document. The background is slightly blurred, showing an office environment with a desk and a chair. The lighting is soft, highlighting the texture of the hand and the grid.

HP e3000 proven results



"Ceridian 's migration from the HP e3000 to the HP 9000 was a success."

"..the HP people were great and they built a solid team that stuck it out until the project was completed."

"HP's migration services and programs will make the transition to another HP platform easy."

"HP has a reputation for technology leadership, quality and service, and our experience with this company over the past 25 years has been exemplary,"

"We look forward to making a smooth transition to the HP rp8400 platform."

"From start to finish, HP was responsive and in tune with our needs, making the migration to our database smooth and expeditious"

"We survived our transition and are extremely pleased with the HP-UX servers. With an HP-UX server, downtime and loss of data are not of concern"



Ceridian

- Ceridian takes the HP e3000 migration plunge with some help from hp services' consulting



Challenges



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

Planning to migrate



- 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

Characterize the application



- 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

- 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
- Taurus/Quest Bridgewater 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

Solution (continued)



- Iteratively tested bulk moves from the HP 3000. Once the logic was proven, the logic for moving incremental HP 3000 data changes was tested
- Bridge Ware 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

- 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

Testing



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

- HP project management avoided 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 used to ease migration
 - Simplified testing
 - Performance penalty

Performance penalty



- Hard to characterize how much performance was lost
 - Running on faster machines
 - No 1-1 comparison
- Not a serious impediment to the project

- 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

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”

Project management



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

- HP e3000 is 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

Results



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

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

Why HP?



- HP and Ceridian teams worked efficiently together
- Maintained overall responsibility and accountability for entire migration activity
- Good solid team of people

“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



CT3, Inc.

- CT3 reaps benefits of increased options in migration to HP-UX server



Challenges



- Established in 1992 to meet the business and software needs of the timber and wood product industry
- Migrate from an HP e3000 to HP 9000 for large customer
- 1995, HP-UX fairly new OS
- 3000 programs
- 1M lines of code

Solution



- Conversion from the HP e3000 to HP 9000 servers
- Designer by Speedware
- Oracle database
- Started August 1994, completed January 1995

Lessons learned



- Take advantage of training and education despite aggressive implementation schedules
- Code written in Speedware 4GL
 - Very little difficulty porting the code from one platform to another
- Calls to the operating system
 - Import/export data in file format
 - MPE commands replaced with UNIX commands
 - Lower case

Importing/exporting files



- Record structures are understood by MPE
 - e.g. IBM mainframes
- UNIX files don't have a record structure
 - Byte stream files
 - Wrote a c-program to pad files so they could be treated like fixed length records
 - Porting the code was simple
 - Porting the data was "a surprise"

- MPE has a very consistent and predictable way of handling them
- Unix uses cron
 - Behaves differently from MPE
 - Consistent but not what we're used to
 - Jobs don't necessarily process in the order in which they were initiated
- Job scheduling systems
 - 3rd part add-on for UNIX
- Solving the problem :
 - Multiple Job Queues
 - Mass-launches
 - Using the right tool for the job

From TurboIMAGE to Oracle



- Not prepared for wealth of features and functionality provided by oracle
 - Didn't want to take advantage of many of these features.
 - Use Oracle like image
 - Managing growth in Oracle
- The solutions weren't difficult but we didn't know what the issues were.
- The environment today:
 - Better tools
 - Better training

Results



- Increased options
- High performance
- High reliability

“HP customers should definitely consider an HP-UX server as an alternative to the HP 3000 if reliability and consistency are what they’re looking for.”

Steve Hall
President
CT3, Inc.



Pacifica Papers, Inc.

- HP cultivates an IT environment for Pacifica Papers



Pacifica Papers Inc.

Challenges



- Paper manufacturer for printing and communication papers
- Build a scalable solution tailored to specific needs
- Increase database capabilities
- Needed complete picture of the entire enterprise

- HP services' consulting
- Conversion from the HP e3000 to HP 9000 servers for application, database, and development servers
- Oracle database
- Migration to SAP
- HP critical systems support (CSS)
- HP XP 256 storage environment
- MC Serviceguard for high availability

Results



- Better high availability
- Superior support

“HP proves time and time again that its products and services are well above standard. In addition to its hardware, HP ensures the highest level of availability and exceptional support. From start to finish, HP was responsive and in tune with our needs making our migration to SAP smooth and expeditious.”

Tony Yee
Systems Superintendent,
Homer Street Division,
Pacifica Papers, Inc.



northA merican Logistics

- HP to keep northAmerican Logistics moving ahead with plans to transition from HP e3000



- Company: northAmerican Logistics, a SIRVA Company
- Headquarters: Fort Wayne, Indiana
- Founded: 1933, Fleet Services established 1975
- Revenues: \$550+ million
- Primary business: northAmerican Logistics, a SIRVA Company, is one of the world's leading providers of high touch commercial transportation, and supply chain and logistics services
- www.nalworldwide.com

Challenges



- Plan transition from HP e3000
- Maintain application flexibility and interfaces with systems in other areas of company
- Minimize transition costs

Solution



- Migrate to an in-house developed application running on an HP-UX server
- Take advantage of six-month free HP lease and discount that could be applied to server purchase price

Results



- Optimal plan utilizing existing internal resources and expertise

Transition planning



- Use internal programming resources to convert MPE/iX-based applications to HP-UX utilizing an Oracle database
- Reconfigure three existing HP-UX servers and procure a fourth to provide a production pair of servers rp5400 for application software and a rp7400 database server — mirrored by an identical pair for fail-over, test and development

Why HP?



- High reliability
- Able to maintain operational flexibility
- Excellent service

“It was a fairly easy decision to transition to HP-UX because we already had in-house experience with HP-UX servers and Oracle database software. HP has always provided us with excellent service and in many cases has gone ‘above and beyond’ to see us be successful.”

Larry Bolinger
Project Leader
Fleet Services Division,
northAmerican Logistics



Virginia International
Terminals

- Smooth sailing for Virginia International Terminals



Virginia International Terminals



- Company: Virginia International Terminals
- Headquarters: Norfolk, Virginia
- Founded: 1982
- Revenues: \$150+ million
- Primary business: marine terminal management company, manages state-owned terminal port facilities in the state of Virginia
- www.vit.org

Challenges



- Plans to double port capacity from 1 million containers
- Move to open systems
- Protect investment in 1 million lines of mission critical custom code
- Maintain 24x7 availability
- Need to provide web-enabled access

Solution



- Utilization of HP 9000 loaner program
- Leverage of discounted HP-UX education courses
- Speedware migration services
- Turboimage to Oracle9i conversion tools
- Speedware Autobahn II

Results



- New infrastructure with underlying software components successfully implemented
- Staff trained on HP-UX, Oracle and Speedware migration tools
- Costs minimized by taking advantage of the HP 9000 loaner program and discounted education
- Development of web-enabled applications is ready to start

“We wanted to leverage our experience with HP — long years of good, reliable, quality service and support on top-of-the-line, stable systems — HP-UX became our natural choice and we like the strategic direction HP is headed with HP-UX mid-range servers... The HP migration group — with its programs and presentations — has also been a tremendous resource. HP is clearly committed to ensuring the success of its customers as they make the transition.”

Clark Farabaugh, Jr.
Assistant Director of IT
Virginia International Terminals



Summit Information
Systems

- Summit Information Systems stays on top of migration planning to keep customers committed to HP



Sum mit Information Systems



- Company: Sum mit Information Systems — a unit of Fiserv, Inc.
- Headquarters: Corvallis, Oregon
- Telephone: 800 937-7500
- Primary business: a leading financial services software developer and integrator for credit unions. At the heart of Sum mit's success is the Spectrum[®] system, a total solution resource designed to help credit unions attain their performance goals.
- [www .summitsite.com](http://www.summitsite.com)

Challenges



- Needed to port applications from HP e3000 to a new platform and reassure customers about viability of making the migration
- Make transition cost-effective for customers

- Began 5-year porting project four years prior to HP's announcement
- Sent letter communicating the impact of the retirement to customers immediately after hp's announcement
- Undertook five-city road show to update customers on porting process and work with them on their transition planning
- Sent customers detailed assessment guide to profile existing environment to ensure smooth migrations
- Conducted a users' group meeting in Spring 2002, to detail road map

Results



- Beta testing HP-UX version of software at two customer installations
- Production version of software to be available in early 2003
- 17 customers are scheduled to transition to HP-UX in 2003

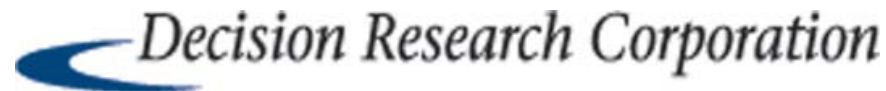
“The fact that we’ve been an HP customer for so long, coupled with the relationship with our customers and HP’s visibility to support our plans, really made our clients feel comfortable that we can help them transition from the HP e3000 to HP-UX pretty easily.”

Kevin Sparks
President
Summit Information Systems



Decision Research
Corporation

- Decision Research Corporation has specialized for over thirty years in the development and implementation of business solutions for the Property and Casualty insurance industry.
- [www .DecisionResearch.com](http://www.DecisionResearch.com)



Project scope



- Convert large insurance firm from HP e3000 to HP-9000
 - Convert IMAGE to Oracle
 - Convert KSAM to Oracle
 - Convert MF-Cobol to NetExpress Cobol
 - Convert MPE Jobs to HP-UX Jobs
 - Train customer's personnel

Project constraints



- No downtime
- Maintain/improve response time
- No data loss
- No change to user interface

Conversion responsibilities



- Customer
 - Manage Conversion
 - Assist in all aspects of conversion
- Decision Research Corporation
 - Convert data utilizing proprietary tools
 - Convert Cobol source code
- Hewlett-Packard
 - Batch jobs
 - Hardware setup
 - Convert homegrown code
 - Testing and fallback plan

Conversion timeline



- Preliminary planning – 4 months
- Tool customization – 2 months
- Pilot project – (quote conversion) – 6 months
- Pilot project review – 3 months
- Policy conversion – 6 months
- Receivables and claims conversion – 4 months

Project planning



- Use tools
- Divide migration into pieces
- Start early

Project results



- Use of DR C Tools validated
- Over 2 million quotes converted
- Comparable performance

Keeping you informed and educated



- hp e3000 web site: www.hp.com/go/e3000
- hp e3000 partners: www.hp.com/go/e3000partners

Transition solutions portfolio



- www.hp.com/go/e3000guide
- White papers
 - Business Planning Guide
 - Technical Planning Guide
 - Compilers and User Interfaces
 - TurboIMAGE and Database Issues
 - KSAM and MPE File System Issues
 - Command Languages and Batch Processing
- General information
 - HP e3000 Roadmap Quick Reference Guide

Transition solutions portfolio



- www.hp.com/go/e3000guide
- System and OS information
 - HP e3000 A-Class Product Brief
 - HP e3000 N-Class Product Brief
 - MPE/iX Release 7.5 Product Brief
 - 8700+7.5 HP e3000 Business Solutions
 - HP e3000 Roadmap
 - HP-UX 11i Datasheet
 - UNIX Family Brochure
 - ProLiant Family Guide
 - HP ProLiant Family Brochure
 - Hardware Conversion Kit for Your HP e3000
 - Linux on HP ProLiant Servers

- HP e3000 Transition Program – Complete Suite of HP e3000 Transition Solutions
- Changes to Hardware and Software Support Life for HP e3000
- HP e3000 Management Services
- HP Support Services
- HP e3000 Transition Analysis Service
- HP's MPE/iX to HP-UX Migration Assessment Service
- HP e3000 Transition Training Solutions
- HP e3000 Education – HP-UX Fundamentals E-Coupon

Partner information



- HP e3000 Transition Services Partner Matrix
- HP e3000 Transition Tools Partner Matrix
- HP e3000 Partners w/ Similar Products on Other Platforms
- Dimension Data
- Logical
- MBS
- MB Foster
- Speedware
- Lund

Working with you through the
transition process



Enhancing customer loyalty,
one customer at a time



i n v e n t