

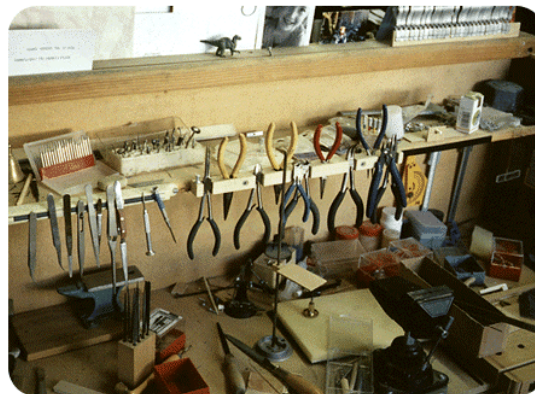
HP e3000 Transition Program Update

Alvina Nishimoto
Americas HP e3000
Transition Program Manager



HP e3000 transition program overview

- Full end-to-end solution of programs, tools, and services
- Designed to
 - Make e3000 transitions more cost-effective
 - Give you more guidance to make the transition smoothly
 - Help you come up to speed efficiently on your new HP platform



Transition program office

- Centralized resource and migration assistance for sales teams
- Makes it easy for sales reps to engage the resources you need
- End-to-end solutions
- Worldwide focus

Marketing center

- Access to communications, training, collateral, trade-shows, programs and promotions
- Roadshows, workshops
- Localization
- Region focus

Migration center

- Access to all technical teams, including MPE, HP-UX, Linux, Windows/NT, HP Education, Consulting, Training, Support, Sales and Outsourcing
- Region focus

HP 9000 and HP-UX transition options



- Upgrade your HP e3000 before October 31 taking advantage of discounted support
 - If a N-Class HP e3000, register for the Investment Protection program
 - Take advantage of the six month free loaner
 - Use the free conversion kit w/free HP-UX base OS
 - Take advantage of software trade-in for free or discounted Enterprise or Mission Critical OE
 - Either purchase the HP 9000 (at a discount) or return one server
- Transition to the HP 9000
 - Take advantage of the six month free loaner
 - Purchase the HP 9000 (at a discount) after the six month period
 - Take advantage of software trade-in for free or discounted Enterprise or Mission Critical OE

Hardware and software

- Servers (MPE/iX and HP-UX)
 - Free e3000 to HP-UX conversion kits
 - Investment protection program for new N-classes
 - e3000 trade-in/ trade-up rebates for series 9xx servers
 - HP-UX and Proliant trade-in/ trade-up rebates for series 9xx servers
- Software (HP-UX)
 - HP-UX11i is included free with HP e3000 A- & N-class hardware conversions
- Storage
 - Storage (HP and non HP) trade-in rebates

One option: 3000 to 9000 conversion kits

M P E/ix servers

HP-UX servers

A400 110 MHz	more cpu power!!!	3 440 MHz Server (A6109B)
A500 140 MHz Server (A6399B)		rp2450 440 MHz Server (A5570B)
A400 150 MHz Server (A7018C)		rp2430 650 MHz Server (A6889A)
A500 200 MHz Server (A7019C)		rp2470 650 MHz Server (A6890A)
N4000 220 MHz (A6449B)		rp7400 440 MHz (A3639B)
N4000 330 MHz (A6450B)		rp7400 440 MHz (A3639B)
N4000 440 MHz (A6451B/A6452B)		rp7400 440 MHz (A3639B)
N4000 550 MHz (A6453B)		rp7400 550 MHz (A3639B)
N4000 380 MHz (A6103C)		rp7400 750 MHz (A3639C)
N4000 500 MHz (A6914C)		rp7400 750 MHz (A3639C)
N4000 750 MHz (A7014C)		rp7400 750 MHz (A3639C)

Upgradeable
to 8-way!!!

Loaner program

- Value-add service to help the migration process
- Qualified customers are eligible for 6 month HP 9000, HP Proliant loaner systems
- Customers have option to do a buy-out at the end of the loan term for a substantial discount

Investment protection program



- Purchase or upgrade to a new HP e3000 PA-8700 N-Class Servers
- And earn “dollar credits” towards reducing the future purchase price of a new HP-UX (PA-RISC or Itanium) server
- Provides for additional flexibility over the free conversion kits
- Trade-in not required

HP e3000, HP 9000, Itanium server trade-in program



- New program allowing trade-in of one or many hp e3000 for rebate on one HP 9000 or Itanium server
- 3% to 15% rebate depending on size of from and to servers
- Rebates are combinable up to a maximum of 15%

ProLiant server trade-in program



- New program allowing trade-in of one hp e3000 for rebate on several ProLiant
- Up to 15% rebate on each ProLiant up to the maximum of three ProLiant servers for one HP e3000

Software cross-platform trade-in policy



From: HP-UX HP 9000 **to** HP-UX Integrity Server or OpenVMS I64

From: Tru64® UNIX Alpha **to** HP-UX HP 9000, HP-UX Integrity Server or OpenVMS I64

From: OpenVMS VAX or OpenVMS Alpha **to** OpenVMS I64, HP-UX HP 9000 or HP-UX Integrity

From: MPE/iX HP e3000 **to** HP-UX HP 9000, HP-UX Integrity Server or OpenVMS I64

Support
customer

- Licenses on support* are traded-in for new licenses at no charge
- Commitment to continue support* on new licenses for one (1) year

Non-
support
customer

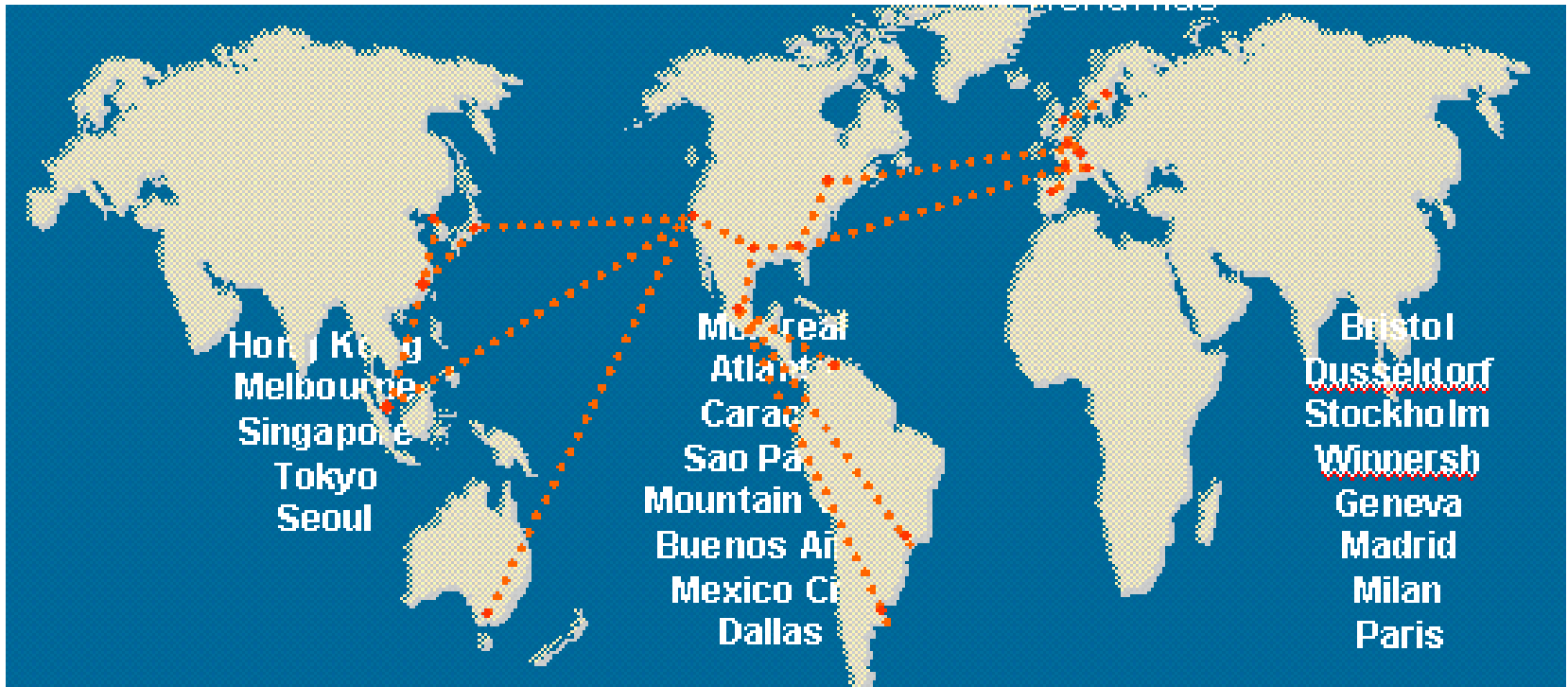
- Licenses not on support* are traded-in for new license purchase at 40% of new license price
- Commitment to support* on new licenses for one (1) year, pre-paid

- Trade-in applies to 'equivalent product' or operating environment licenses
- Parallel usage of licenses on both platforms is allowed during transition

* Support = Service contract with Right to New Version (RTNV)

Support for your always-on business

- 24 x 7 x 365 support
- 160 countries
- 65,000 professionals
- 105 Response and Operations Centers located around the world
- 80 HP customer education centers worldwide
- 15 SAP/HP Competency Centers
- Global knowledge management system
- Network of services partners worldwide



Changes to hardware and software support life for HP e3000



- In response to customers' requests,
 - Hardware support life for all currently supported HP e3000 systems has been extended, uniformly, to the end of December 2006
 - Software support life for MPE/iX Release 6.5 is extended from December 2003 to December 2004
- Provides customers with less disruption and more time to successfully complete migrations to other HP platforms

Support

HPCS support promotion (available May 1)

- save up to 20% on hp support
- purchase support at the same time as your new HP e3000 A- or N-Class before October 31, 2003 and receive discounts on the following services:
 - 10% of list price for 3-year 24 X 7 hardware and software support
 - 10% off list for 1-year Personalized System Support
 - 20% off list price for 1-year Critical System Support

HP 9000 and HP-UX transition options



- Upgrade your HP e3000 before October 31 taking advantage of discounted support
 - If a N-Class HP e3000, register for the Investment Protection program
 - Take advantage of the six month free loaner
 - Use the free conversion kit w/free HP-UX base OS
 - Take advantage of software trade-in for free or discounted Enterprise or Mission Critical OE
 - Either purchase the HP 9000 (at a discount) or return one server
- Transition to the HP 9000
 - Take advantage of the six month free loaner
 - Purchase the HP 9000 (at a discount) after the six month period
 - Take advantage of software trade-in for free or discounted Enterprise or Mission Critical OE

Porting and migration services



- Complimentary initial assessments for all customers
http://www.hp.com/hps/tech/deploy/e3000_survey.htm
- Comprehensive HP consulting and porting and migration services
- Platinum partners for small/medium business services needs
 - Lund
 - MB Foster
 - MBS
 - Speedware

HP e3000 Platinum Partner Program



Provides you with:

Third party migration service options and centralized distribution, sales, support, & training for migration tools

Benefits:

- broad reach of comprehensive migration tools
- flexibility in migration options and offering low cost alternatives
- one stop shopping



www.lund.com



www.speedware.com

MB Foster



www.mbfoster.com



www.thinkmbs.com

HP migration process/methodology services



- Phase 1 – Discovery
 - Survey
 - Feasibility Study
- Phase 2 – Analysis
 - Technical Assessment
 - Business Requirements
- Phase 3 – Design
 - Solution Description
 - Project Plan
- Phase 4 – Construction
 - Code/Data Migrated
- Phase 5 – Testing
 - Test Plan
 - Test Results
- Phase 6 – Transition
 - Knowledge Transfer
 - Admin and Developer Guides
- Phase 7 – Support
 - Consulting HotLine
 - 30 Day Standard Warranty
 - Longer Warranties Available

Migration delivery options from HP

- Code evaluation
- Environment investigation
- Alternatives analysis
- Tools identification
- Initial scope and schedule definition
- Define work breakdown structure
- Determine resource structure

Key differentiators for HP

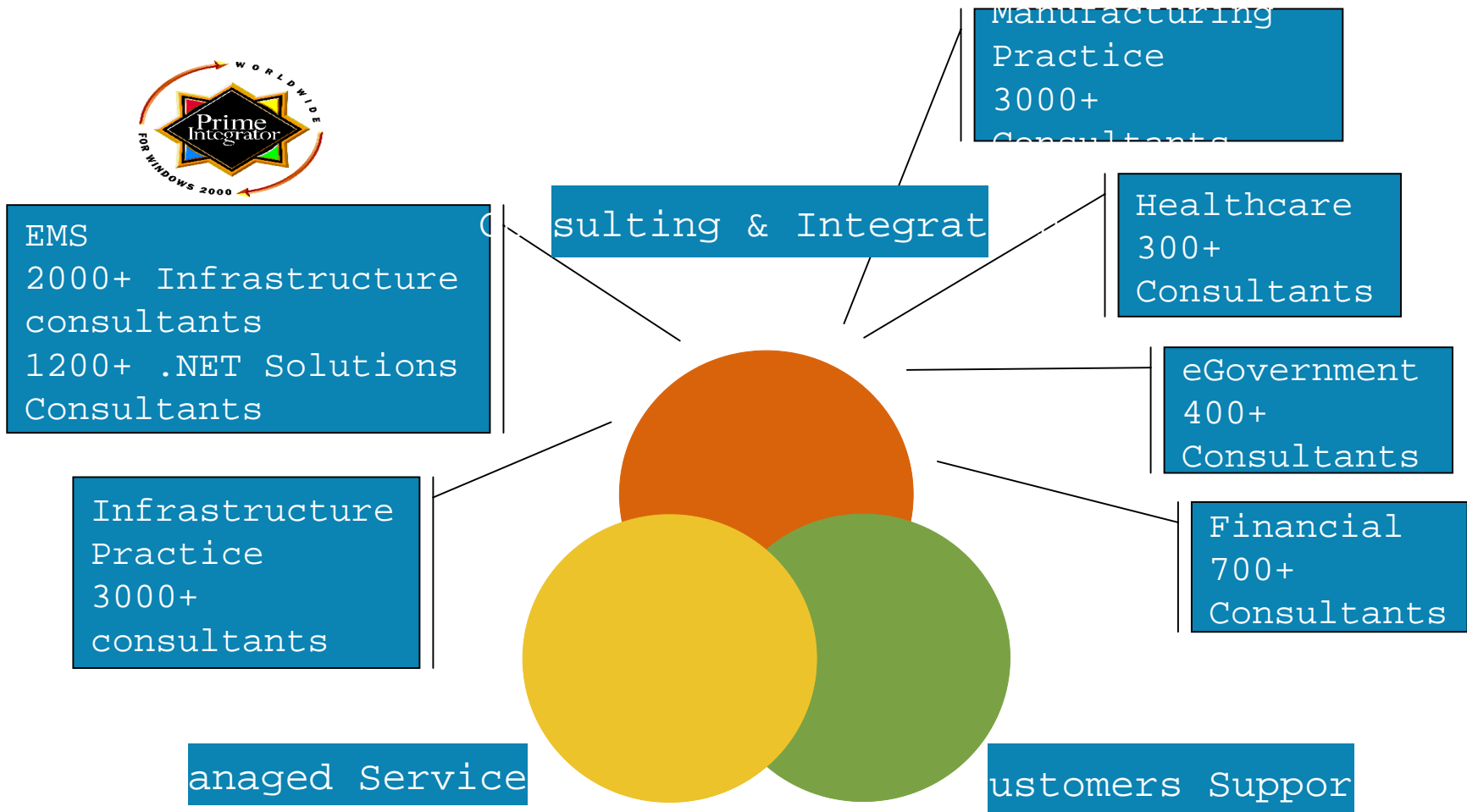
- HP fully understands not only Application Code Migration, but more importantly – Database Migration
- HP delivers these services through a dedicated business program to achieve high levels of efficiency, quality, and timeliness
- HP integrates resources, standards, and processes through HP's worldwide program and project management methodology, to ensure client satisfaction
- HP has been the largest MPE user, and has the greatest experience and partnership with 3rd party vendors
- We have vast experience migrating our own mission critical applications

Microsoft .NET simplified

- A framework & programming model, a set of tools, a bundle of services, providing far-reaching benefits; from improving daily operations to providing advanced capabilities for deploying next-generation technologies
- Is the programming model underlying .NET for developing, deploying, and running XML Web services and applications.
- XML Web services are units of code that allow programs written in different programming languages and on different platforms to communicate and share data through standard Internet protocols such as, XML, SOAP, Web Services Description Language (WSDL), and Universal Description, Discovery, and Integration (UDDI).



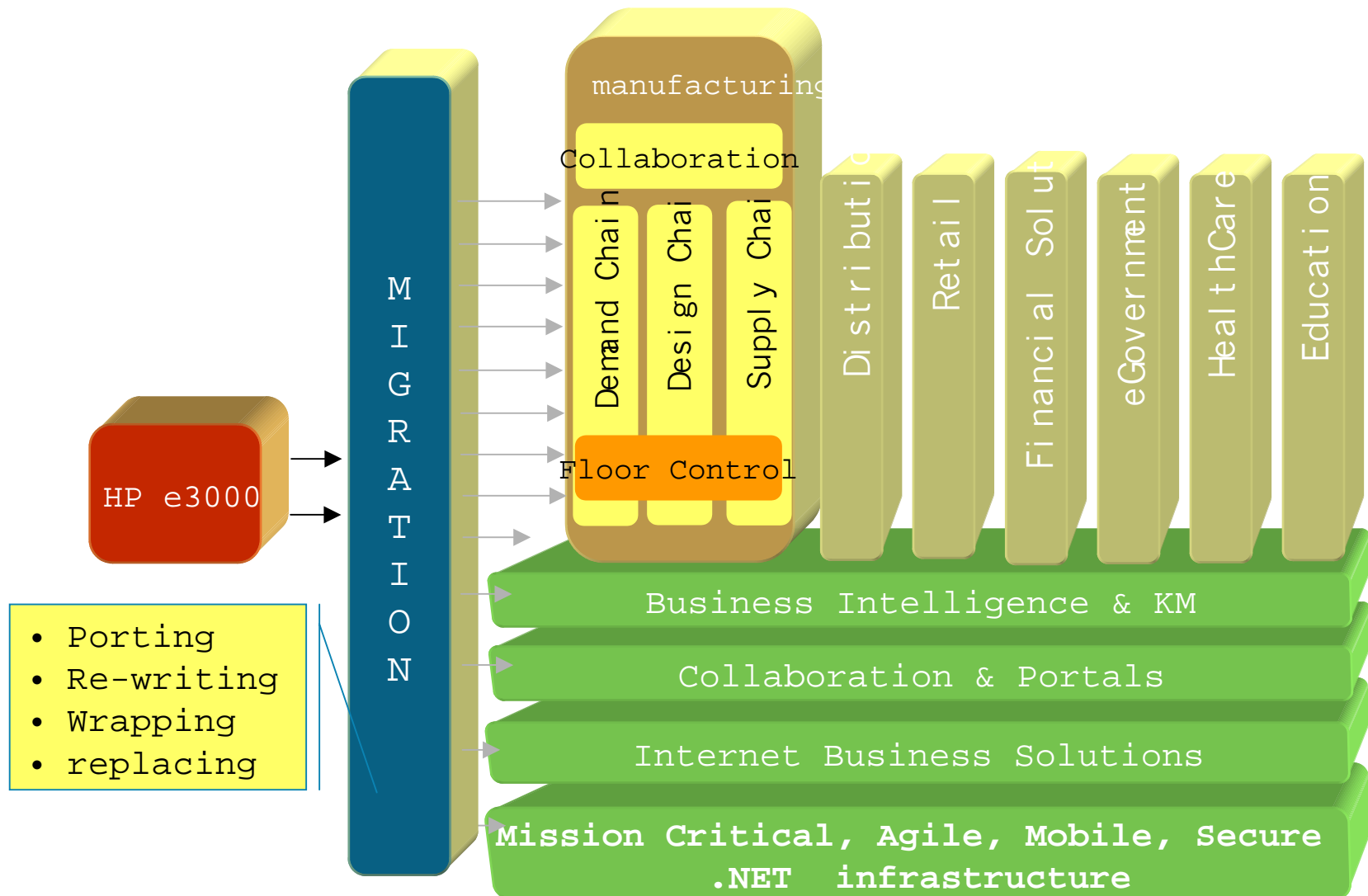
HP Services



.Net results program

- Prime Integrator for .NET status
- \$50M+ in investment (2002-2004)
- Focus on vertical and custom solutions
- Focus on integration solutions
- Dedicated .NET Sales teams
- 1800 delivery consultant
- Joint goal for MS and HP

Services offering



HP managed services

- Management services
 - Remote management of existing MPE/iX systems
 - Meet agreed-upon service levels to support business objectives

- Hosting solutions
 - Systems reside at HP data center
 - Systems managed and operated by HP

Benefits of outsourcing

- Free up your limited IT resources to plan and deploy new environment
- Leverage HP's expertise
- Minimize transition time and business disruption

Training for HP e3000 customers

■ Platform Training from HP

- HP-UX
 - Linux
 - Windows 2000
 - Windows NT
 - .Net
- Microsoft .NET for Developers
 - Microsoft .NET for Developers: Building XML Web Services

■ curriculum map

hp e3000 transition training

concept and facilities

reference papers	webcasts	reference tools
<ul style="list-style-type: none"> → hp e3000 transition considerations white paper (*.pdf) → hp develops comprehensive transition training for hp e3000 customers and partners (hp e3000 advisor - June 2002) 	<ul style="list-style-type: none"> → register for upcoming webcasts database issues <i>live 23 July 2002</i> putting it all together <i>live 27 August 2002</i> → hp e3000 transitions - first steps <i>22 January 2002</i> → planning the project <i>23 April 2002</i> → language issues <i>21 May 2002</i> → user interface issues <i>25 June 2002</i> 	<ul style="list-style-type: none"> → system administration cross reference (interactive web tool) → commands cross reference (interactive web tool) → programmers API cross reference (interactive web tool)

fundamentals *

web-based courses	
→ curriculum	
quick start to unix	→ U3103aaa
hp-ux from an mpe perspective: system and usage configuration	→ U3104aaa
hp-ux from an mpe perspective: networks	→ U3105aaa
hp-ux from an mpe perspective: eloquence	→ U3106aaa
unix foundation technology curriculum	→ U1646aaa

in-depth

classroom courses	
→ curriculum	
hp-ux fundamentals	→ 51434s
system and network admin I	→ H3064s
system and network admin II	→ H3065s
system and network admin III	→ H3045s
Oracle intro	→ H1467s
	→ H8484aaa

linux/Windows
<ul style="list-style-type: none"> → linux → Windows 2000 → Windows NT

E-coupon code for free online transition training



- Available to all HP e3000 customers
- e3000.training@hp.com
- <http://www.education.hp.com/curr-mpe-e3000.htm>
- Your e-coupon code: ENT96SN02

HP e3000 Web based training

<http://www.education.hp.com/curr-mpe-e3000.htm>

- Self-paced training courses available from HP to e3000 customers
 - Over \$2,000 worth of hp-us training, available to you at no charge
 - Select the course you want to take, and register using your e-coupon code.
 - If you have forgotten your e-coupon code, send email to:
 - e3000.training@hp.com
 - specify that you didn't get your e-coupon.



fundamentals

web-based courses

→ [curriculum](#)

quick start to unix → [U3103](#)

hp-ux from an mpe perspective: system and usage configuration → [U3104](#)

hp-ux from an mpe perspective: networks → [U3105](#)

hp-ux from an mpe perspective: eloquence → [U3106](#)

unix foundation technology curriculum → [U1646](#)

HP e3000 Web based training

- <http://www.education.hp.com/curr-mpe-e3000.htm>
- Self-paced training courses available from HP to e3000 customers
 - Over \$2,000 worth of training, available to you at no charge.
 - Select the course you want to take, and register using your e-coupon code.
 - If you have forgotten your e-coupon code, send email to:
 - e3000.training@hp.com
 - specify that you didn't get your e-coupon.



more fundamentals

web-based courses

» [curriculum](#)

Microsoft .NET » U2334
for
developers

Microsoft .NET » U3333
for
developers:
building
XML web
services

additional topics

» [linux](#)
» [Windows 2000](#)
» [Windows NT](#)

HP e3000 transitional reference tools

- web based tools for
 - system administrators
 - programmers
 - users



reference tools

- system administration cross reference (interactive web tool)
- commands cross reference (interactive web tool)
- programmers API cross reference (interactive web tool)

"I knew how to do this on the e3000 - but how do you do it on hp-ux???"

Using the sysadm tool

→ [printable version](#)

mpe to hp-ux system administration functions xref

Please select a system administration topic from the list below to get a comparison of that topic between MPE/iX and HP-UX.

Note that some of the recommended HP-UX commands are only available as part of extra cost add-on HP products. Also note that some HP-UX system administration tools are available from [HP partners](#).

Documentation on the full set of HP-UX commands is available in the [HP-UX Reference Volumes](#).

system administration topic: →



This is a work in progress and additional topics will be added soon. Please send any questions or comments about this migration tool to invent_e3000@hp.com.

Using the Sysadm Tool

→ [printable version](#)

mpe to hp-ux system administration functions xref

Please select a system administration topic from the list below to get a comparison of that topic between MPE/iX and HP-UX.

Note that some of the recommended HP-UX commands are only available as part of extra cost add-on HP products. Also note that some HP-UX system administration tools are available from [HP partners](#).

Documentation on the full set of HP-UX commands is available in the [HP-UX Reference Volumes](#).

system administration topic:

Add a user	▼
Add a user	▲
Change a user	
Groups	
Hardware: LDEVs vs. device files	
Hardware: adding new devices	
Hardware: startup and shutdown	
Misc: communicating with users	



This is a work in progress and
questions or comments about


Please send any
hp.com.

mpe to hp-ux system administration functions xref - Add a user

Please select a system administration topic from the list below to get a comparison of that topic between MPE/iX and HP-UX.

Note that some of the recommended HP-UX commands are only available as part of extra cost add-on HP products. Also note that some HP-UX system administration tools are available from [HP partners](#).

Documentation on the full set of HP-UX commands is available in the [HP-UX Reference Volumes](#).

system administration topic: 

This is a work in progress and additional topics will be added soon. Please send any questions or comments about this migration tool to invent_e3000@hp.com.

adding a new user

The MPE command NEWUSER is used to add a new user. A typical example of this would be:

```
:NEWUSER BOB;PASS=NEWGUY;CAP=IA,BA,ND,SF;HOME=PUB
```

Or, an example assigning a UID:

```
:NEWUSER BOB;PASS=NEWGUY;CAP=IA,BA,ND,SF;HOME=PUB;UID=20
```

On HP-UX the useradd (1M) command is used, an example of this is:

```
useradd -u 20 -g pub bob
```

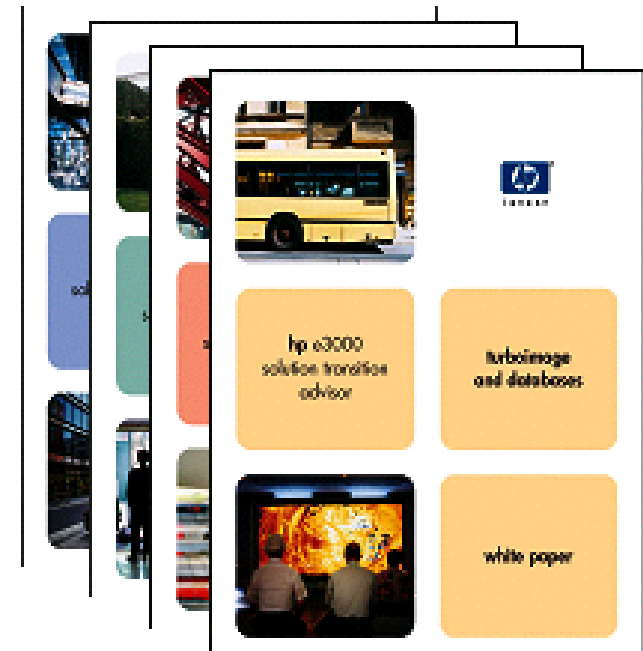
This adds a user 'bob' with a uid of 20 to the 'pub' group. The next step is to add a password for this user using passwd (1):

```
passwd -f bob
```

This simple example using -f (force) will force Bob to change his password the first time he logs on.

Technical white papers

- 6 HP e3000 solution transition advisor white papers
 - Business planning guide
 - Technical planning guide
 - Compilers and user interfaces
 - Turboimage and databases
 - KSAM and the MPE/iX file system
 - MPE commands and networks



HP e3000 Webcasts

- Throughout the year 2002, and continuing in 2003, HP has presented a series of webcasts with news and information about hp e3000 transitions.
 - Training for Project Managers
 - Scoping the project
 - Planning and Budgeting
 - For Programmers
 - Technical “Gotcha’s”
 - Tool Availability
 - For Managers
 - What your exec’s need to know.

Click here

webcasts

→ register for upcoming webcasts

→ putting it all together
live 27 August 2002

→ hp e3000 transitions -
first steps
22 January 2002

→ planning the project
23 April 2002

→ language issues
21 May 2002

→ user interface issues
25 June 2002

→ database issues
23 July 2002

Special HP financing options

- Cash flow management
- Pre-packaged financing
- Customized financing

Public Access Timeshare System for HP e3000 customers

Invent9K provides:

- facilitate migrations from MPE to HP-UX
- evaluate, develop, and test on hp-ux 11i
- ISVs can install demo copies of migration toolsets
- available to partners and customers since April, 2002



Register for a log-on account at:

<http://jazz.external.hp.com/pads>

This HP 9000 system is accessed via the Internet using such standard network protocols as telnet, VT, FTP, HTTP, and SMB. Users are responsible for backing up their own data. Complete terms and conditions listed on user agreement

- Scans all the files, groups, accounts and directories on your system
- Reports statistics on files, including databases
- For databases, it reports jumbo data sets, partial key lookup.
- Reports I/O configuration, user volume info, disk space, largest file, accounts, groups, etc.

Strong partnerships with our ISVs



- HP is working with our loyal e3000 application ISV's to support their transition efforts
- Over 95% of the top HP e3000 ISV's worldwide have committed to moving their applications and installed base customers to HP-UX or to other HP platforms

HP server portfolio

The world's broadest, most robust enterprise offering



entry level



mid-range



high-end

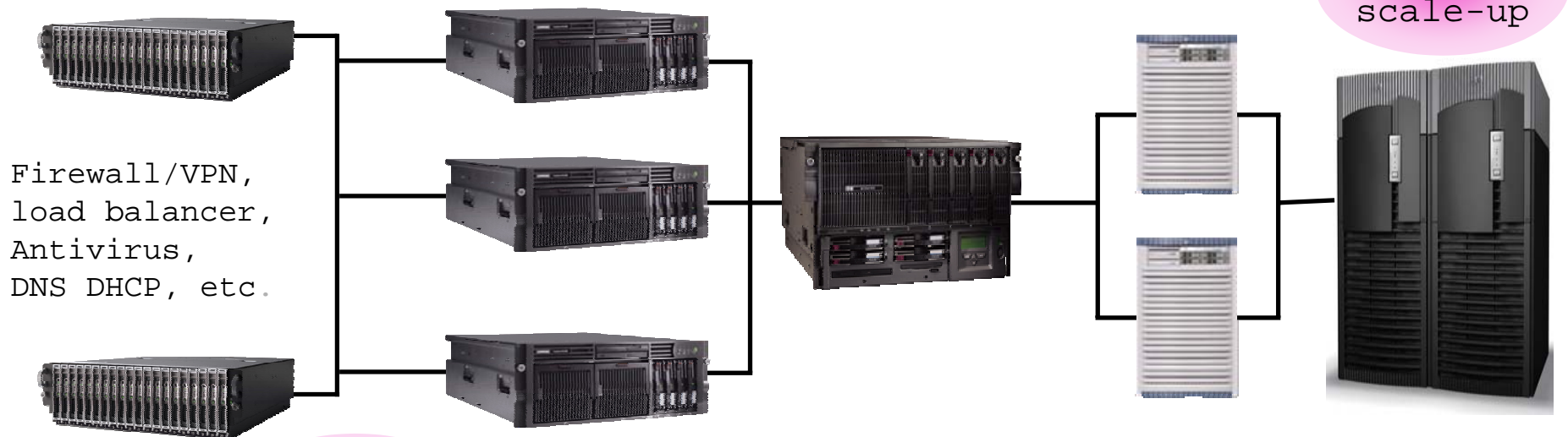


Industry-standard server solutions for the most demanding enterprises

Web and
infrastructure
front end

Enterprise applications
and departmental data
stores

Large-scale
central data
stores



ProLiant
1-4 processor
blade servers

Density-optimized
2-8 processor
ProLiant servers

Up to 64 processor
Itanium-based servers

Leveraging the best of ProLiant and Itanium-based servers
to meet all of our customers' scalability solution needs

HP customers win with Windows Itanium 2-based solutions



- **Database server consolidation: SQL Server – JetBlue**
 - consolidated frequent flyer program database from multiple servers to one with headroom to spare
- **Enterprise resource planning: SAP R/3-Multiyork**
 - linking complex front-end retail process to its manufacturing, finance, delivery and human resource functions
 - growth and scalability for future
- **High-performance computing: SQL Server – Johns Hopkins University**
 - faster processing of large amounts of data to catalogue the observable universe
 - larger SQL server database access
- **Business intelligence: SAS – Wells Fargo**
 - faster data mining for customer profiling and targeted marketing

■ Challenge

- Needed economical, standards-based technology to gain a competitive advantage and keep costs low

■ Solution

- 250 ProLiant servers
- SQL database consolidation on HP Itanium® 2-based server
- Microsoft Windows Server 2003
- HP laptops

■ Results

- Experiencing better than 99.7 percent uptime
- Lowered total cost of ownership
- Reduced labor costs and achieved operational efficiencies

We're excited about the results achieved on our recent deployment of an HP Intel® Itanium® 2-based server for our frequent-flier program.

We were able to consolidate multiple SQL Server database servers onto a single 4-way HP

Intel® Itanium®

2-based rx5670 server, and still have plenty of headroom.


— Jeff Cohen

Vice President and CIO

JetBlue Airways Corporation



"HP, SAP and Itanium processing power running a 64-bit version of Microsoft Windows Server 2003 is a winning combination – the latest ERP technology at the best price/performance ratio currently available. This is exactly what we required to integrate and improve our business practices. It is essential for all components of our business to be in tune with one another. This is a tailor-made solution for a tailor-made business."

A close-up photograph of a person's hand reaching out to touch a window with a grid pattern. The hand is positioned on the right side of the frame, with fingers slightly curled. The window is made of dark frames and light-colored panes. The background is slightly blurred, showing an indoor setting with a desk and a chair.

HP e3000 proven
results



Ceridian

Ceridian

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



Ceridian – business overview

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



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

- 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

- 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

- 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

Database Migration Tools

- Focused products for TurbolImage
 - Quest/Taurus – Bridgewater
 - Speedware – DBmotion
 - MB Foster – UDACentral
 - OmniSolutions – SqlLink 3000
 - And other bridges (XenoBridge, Robelle, DISC, WRQ, iMaxSoft, VitalSoft, etc.)
- App migration tools that offer some level of DB migration
 - Neartek, Denkart, Transoft, Sungard BI-Tech

BridgeWare

co-product of Quest Software and Taurus Software

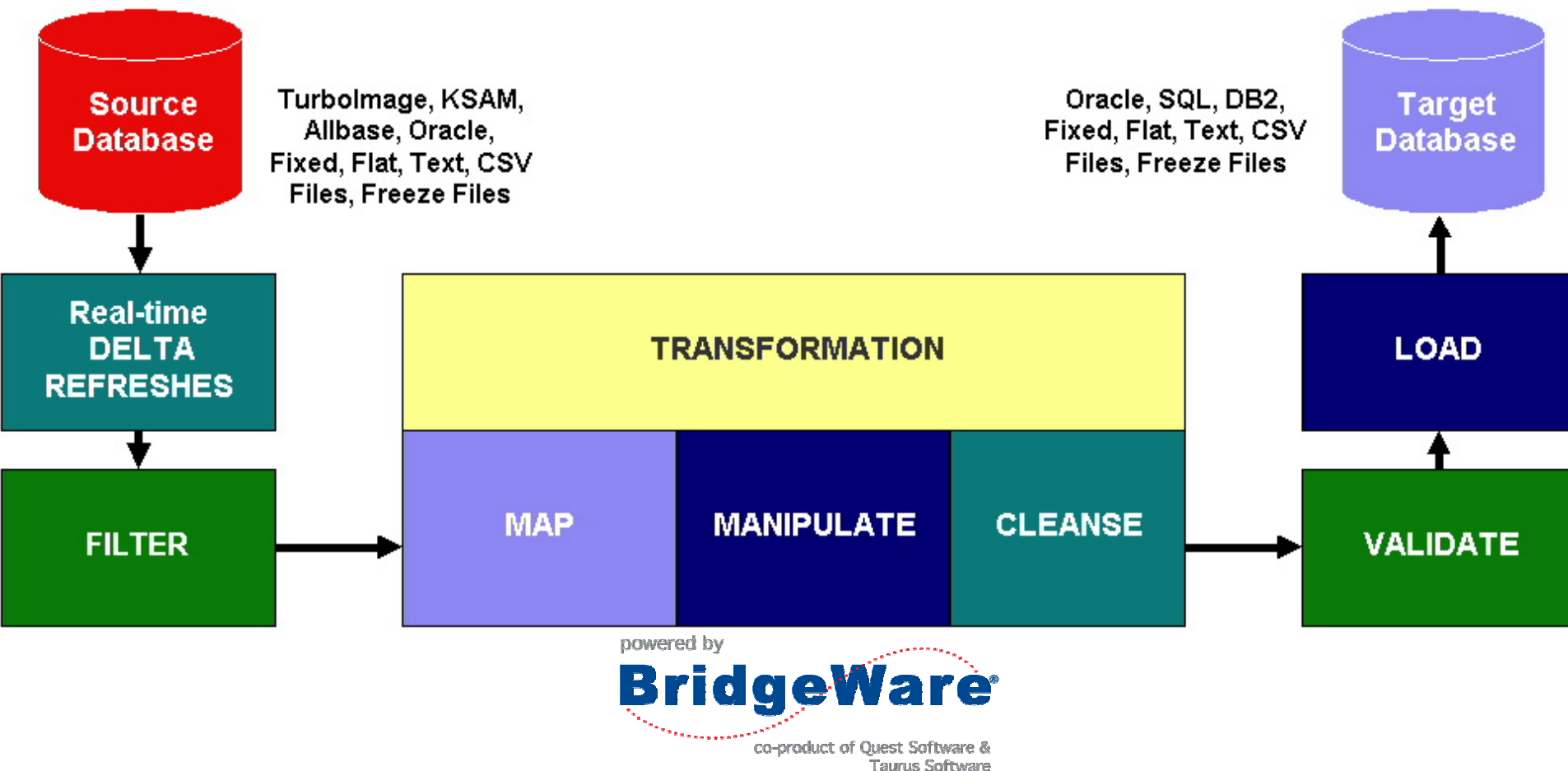


- Customer Migrations
- Staged migration = no user downtime
- Fast map and load data with GUI
- No database expertise required
- Highlights “dirty data”
- Complex transformations
- Real-Time MPE data capture
- Bi-directional, high speed data movement



BridgeWare Process

BridgeWare HP e3000 Migration to Open Systems



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

App 1
App 2
Applications and Services



Development Database



Developers



DBAs

High Availability
& Reporting
Databases



Business
Intelligence
Databases

End Users



End User
Community



User
Printers



Report & Document
Warehouse



Production
Print Management

The Application Infrastructure

Development & Test

Production

End Users

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



■ Benefits

- Saves you significant time by automating much of the process
- Designed for e3000 databases
- Easily fits into your migration budget with it's affordable price

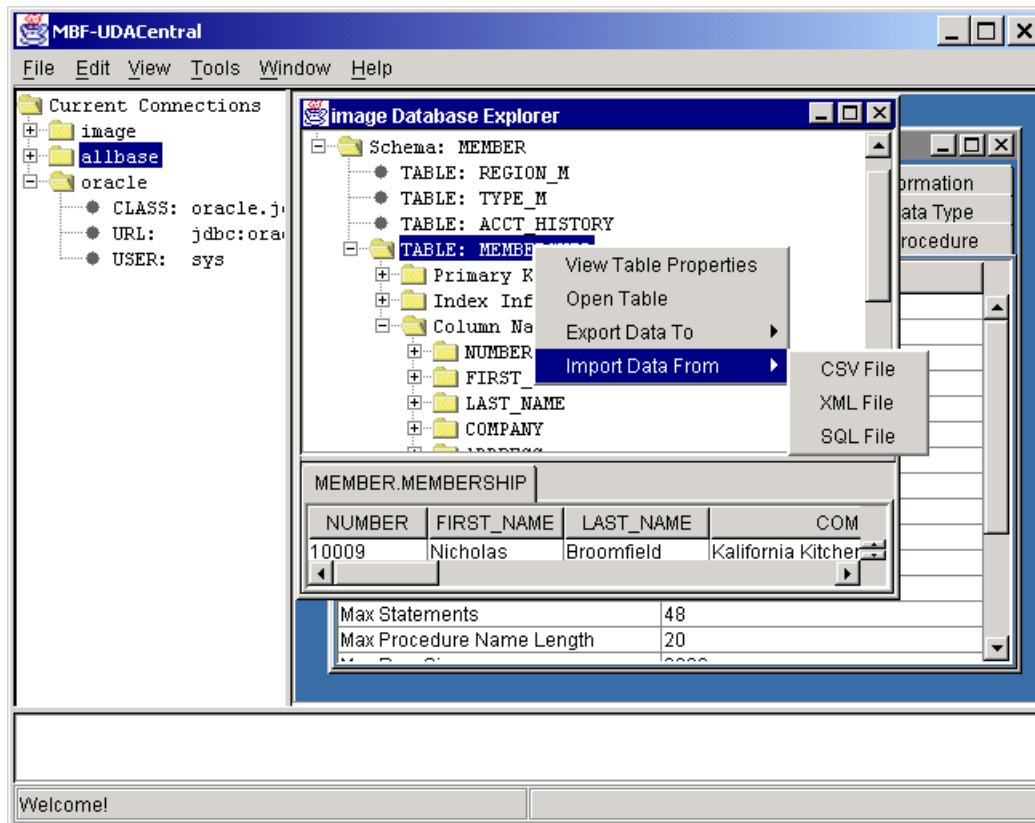
■ Features

- Supports Image/Ksam/Flat to Oracle (any server) and SQL Server. Also automates Omnindex -> 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 Omnindex!
- Merge Databases and files into one target Database
- Provides reporting features to better understand database files and items

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

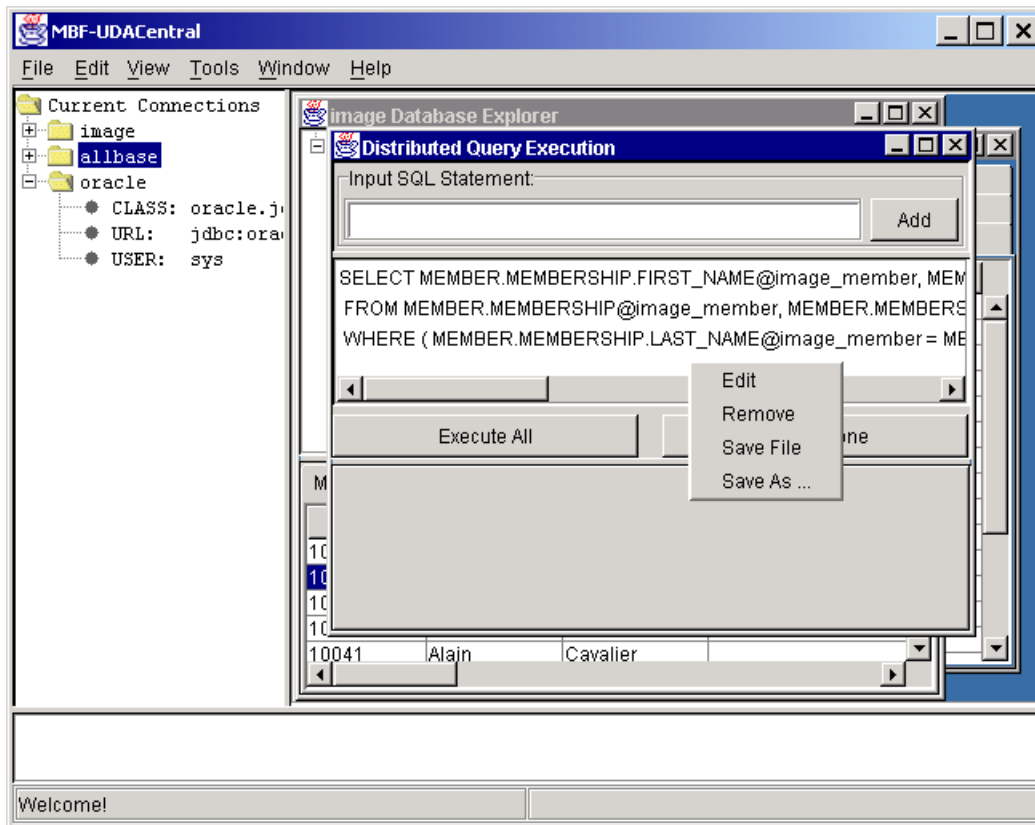
MB Foster UDACentral



Import/Export Capabilities :

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

MB Foster UDACentral



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.

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

Application DB access

- Can you keep the code as is?
 - Tools can translate DB access intrinsics to native or general access functions
 - Keep the intrinsics and use a mapper API, which will make the appropriate native translation
- Define access method
 - Native
 - API mappers
 - ODBC/ADO/JDBC/etc.

How it works today

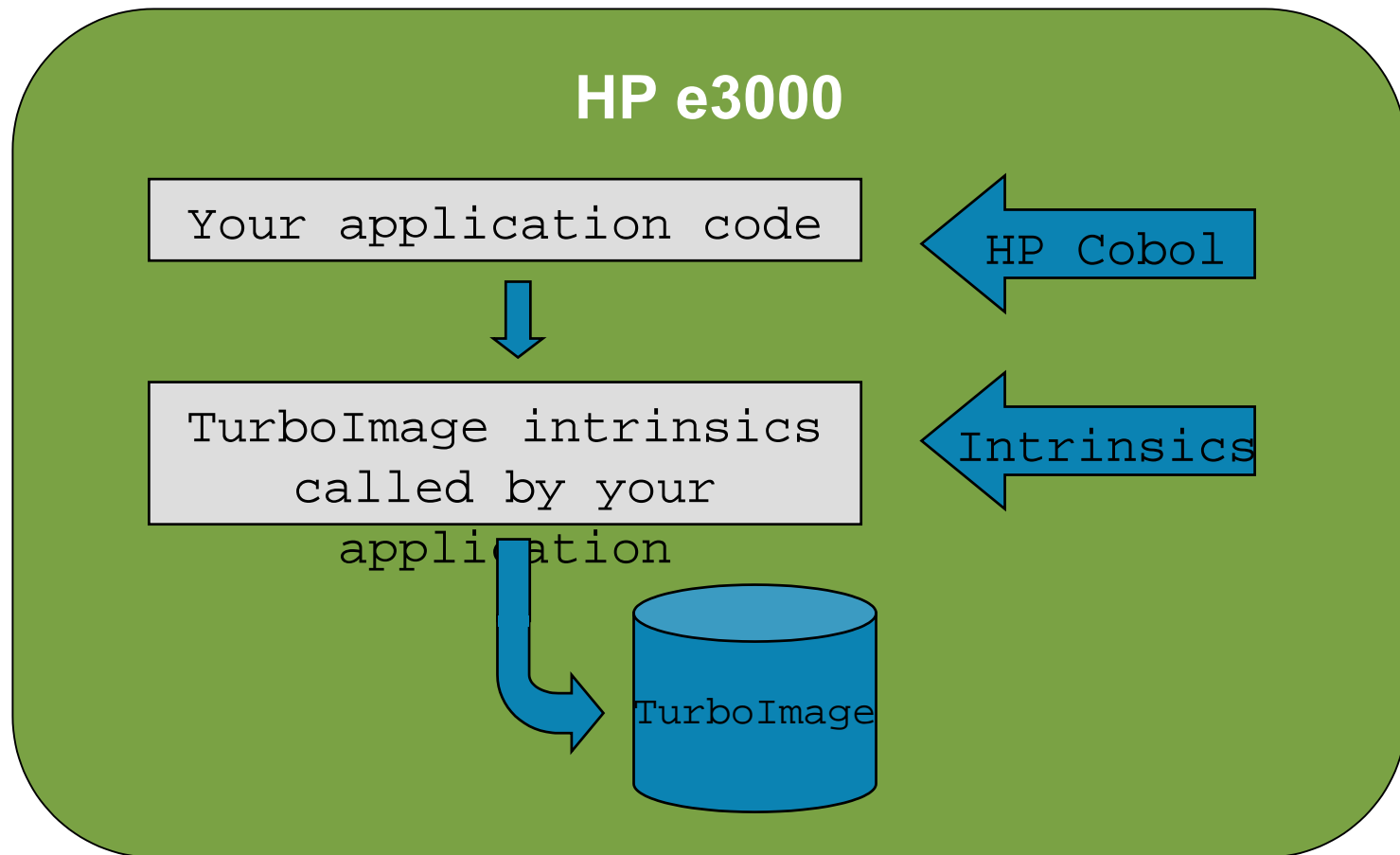


Image look-alike option

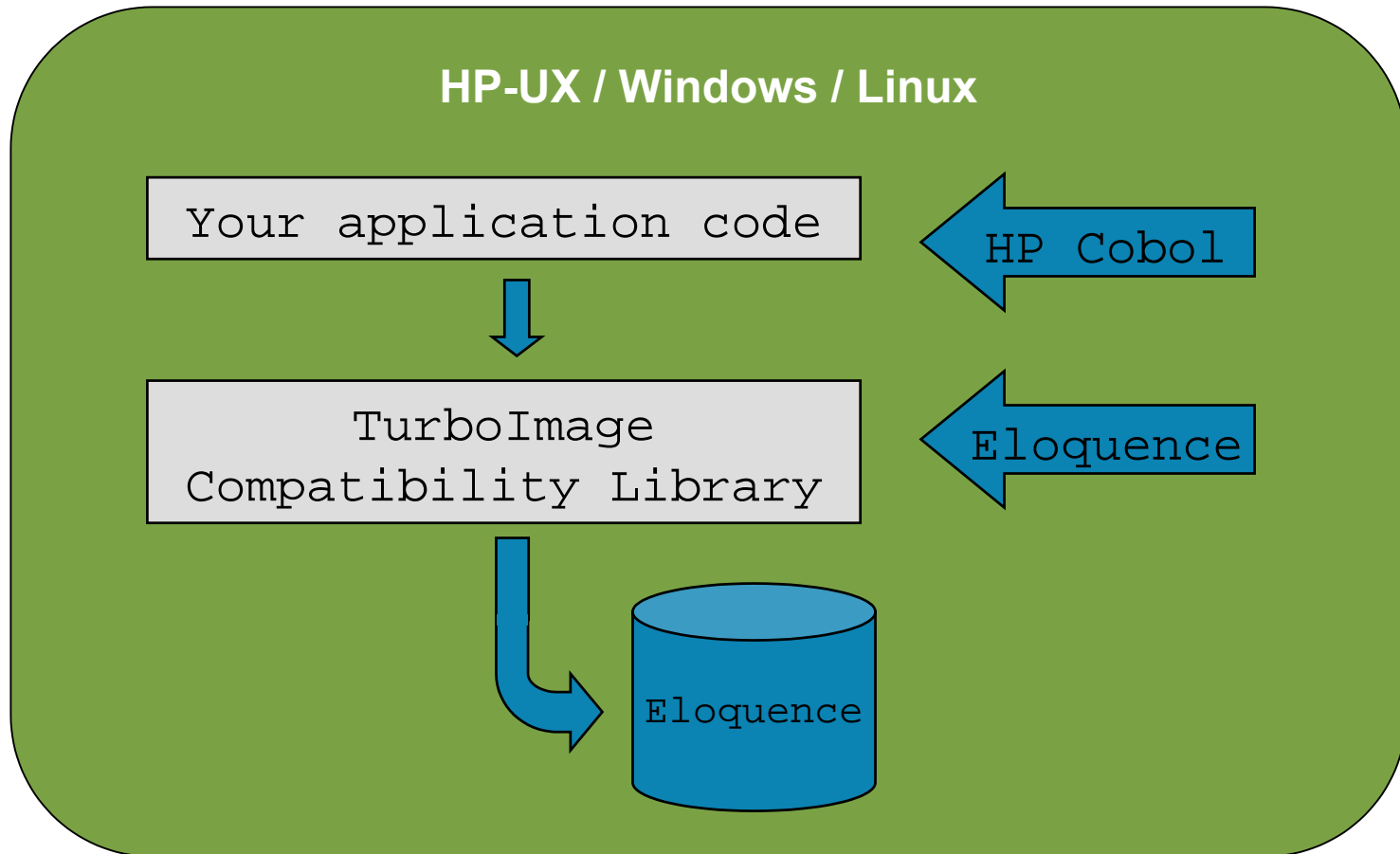
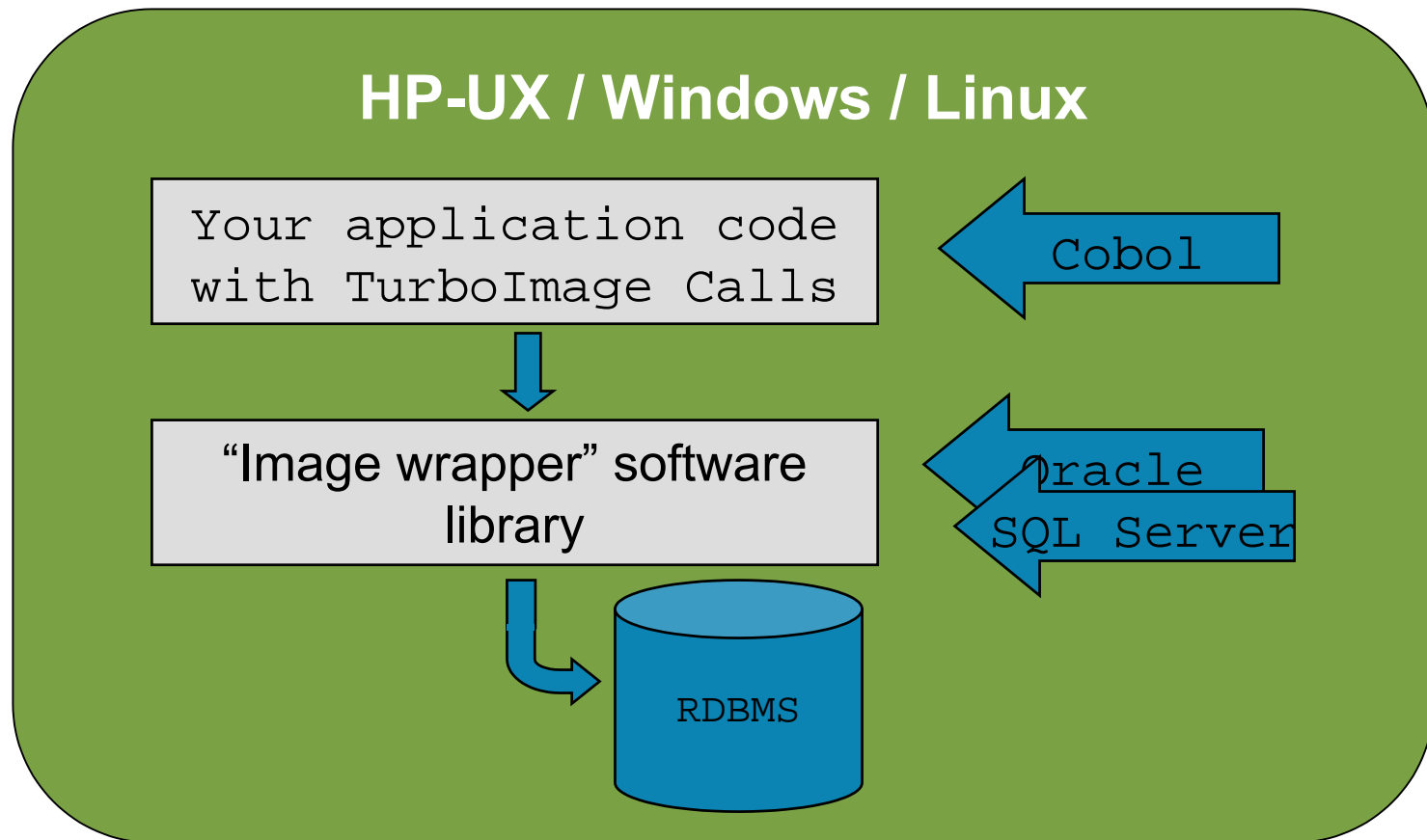
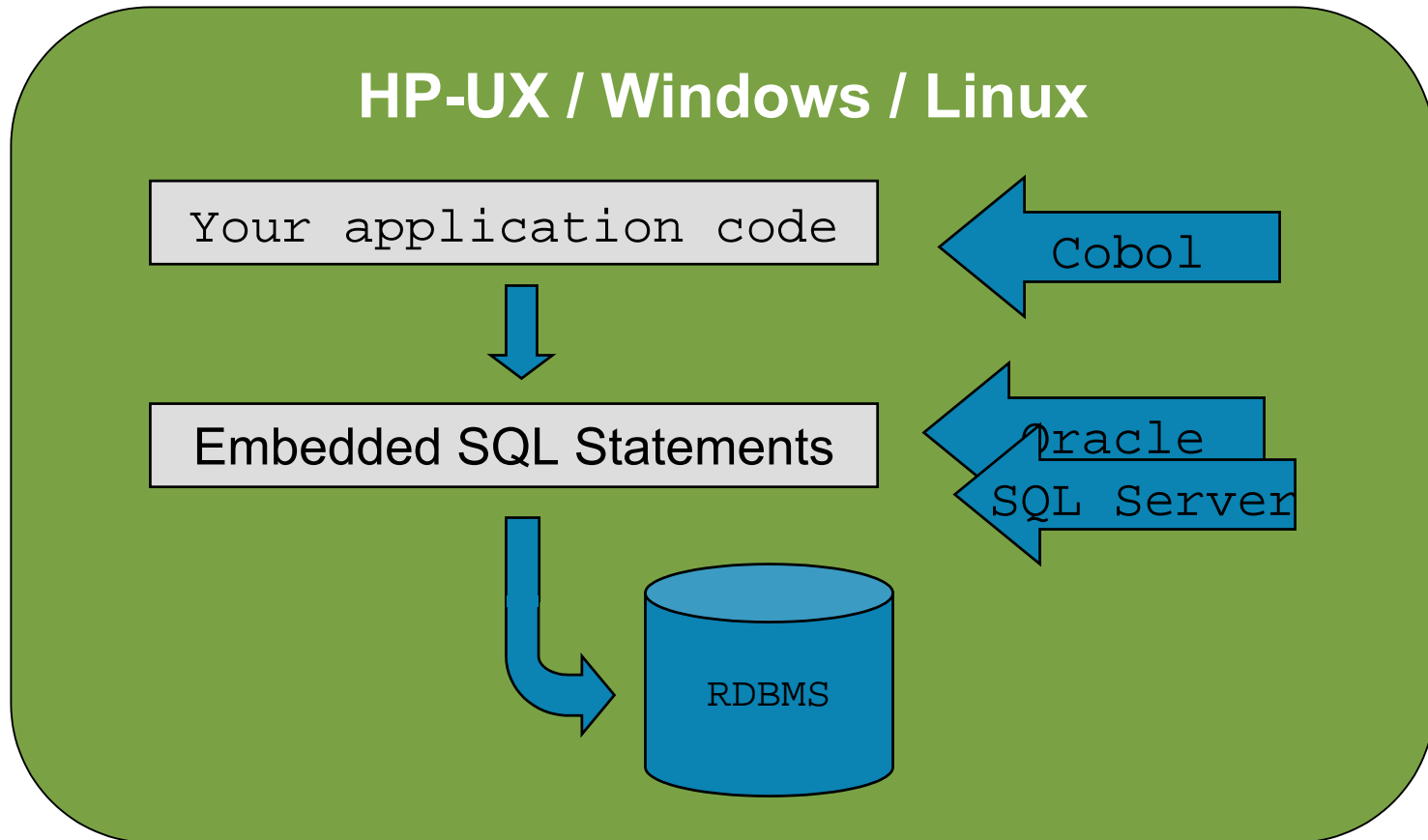


Image wrapper option



Redesign option



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

3GL Migration Tools

- 4 HP-validated migration solutions
 - Denkart
 - ASP model of migration, charged by number of lines of code, 95% migrated
 - Many 3GL options
 - Neartek
 - Migration tools, packaged and sold as a toolset.
 - Transoft
 - Migration toolset, sold as a consultative solution.
 - Sungard Bi-Tech
 - Migration toolset, sold via consulting, residual run-time libraries for Image and OS calls

Ordina Denkart

- ViaNova 3000, plus
 - WingSpan – VPlus emulation on non-MPE systems
 - EdWin – Graphical interface for VPlus emulation
 - MPUX – MPE Emulation layer
 - Complete and proven
 - Includes support for OS intrinsics, MPE commands, batch jobs and management, spooler, and other MPE utilities.
 - ORDAT is used for DB Intrinsics to Oracle
- Migration of multiple 3GLs
 - To many platforms, incl. HP-UX and Windows
 - HP Cobol to Microfocus Cobol (only)
 - Working on AcuCobol option
 - Fortran 77 to Fortran 77
 - Fortran to C/C++
 - Pascal to C++
 - C to C/C++
 - SPL to C/C++

Ordina Denkart

- Solution is sold in a remote service model
 - Turn around time of basic migration is as short as a few days
 - How it works
 - customer's code is sent to them
 - They run it through an estimator
 - They provide a quote
 - If the customer agrees and signs off, the migration is performed
 - Completed work, along with error reports for what didn't convert are sent back to the customer
- Customer must complete the work himself, OR
Another partner completes the work

Neartek

- AMXW
 - Includes an MPE Emulation layer for OS intrinsics, MPE commands, batch jobs, and other MPE utilities.
 - Includes Image Intrinsic trapping layer
 - Combines with EdWin (from Ordina Denkart) for VPlus graphical emulation
- Migration of multiple 3GLs
 - HP Cobol to Microfocus Cobol (only)
 - Working on AcuCobol option
 - Fortran 77 to Fortran 77
- Solution is sold as a tool only.
 - Ideal for customers that want to do it themselves
 - Price is based on number of lines of code to be migrated per application



project

- Include Cobol
- Sources Cobol
 - E\NEARTEK
 - U002U0AQ.cob
 - U014M0EQ.cob
 - U022N0AQ.cob
 - U081E00Q.cob
 - Z077C0CQ.cob
- Sources Fortran
- Include SPL
- Sources SPL
- Ecrans C Wingspan
 - E\FORM
 - u002a00s.c
 - u014h00s.c
 - z077p00s.c
- Ecrans H Wingspan
- Ecrans Cobol Wingspan
- Schémas bases de donnée
 - E\MIGRE
 - OB000.sch
 - OB077.sch
 - ODUMMY.sch
- Fichiers JCL

E:\NEARTEK\NEWLAB\MPEXL\E\MIGRE\OB077.SCH

IDENTIFIED BY

NEWLAB;

Options

Migration

Outils

Rapport de migration

Extension MPE

Extension NT

Dossiers

	Clauses copies	cpy
	Include Cobol	cpy
	Sources Cobol	cbl
	Include SPL	h
	Sources SPL	c
	Sources Fortran	f
	Ecrans C Wingspan	c
	Ecrans H Wingspan	h
	Fichiers JCL	jcl
	Schémas bases de donnée	sql
	Ecrans Cobol Wingspan	cbl

Type de base

SqlServer

Valider

Annuler

MAXEXTENTS 120);

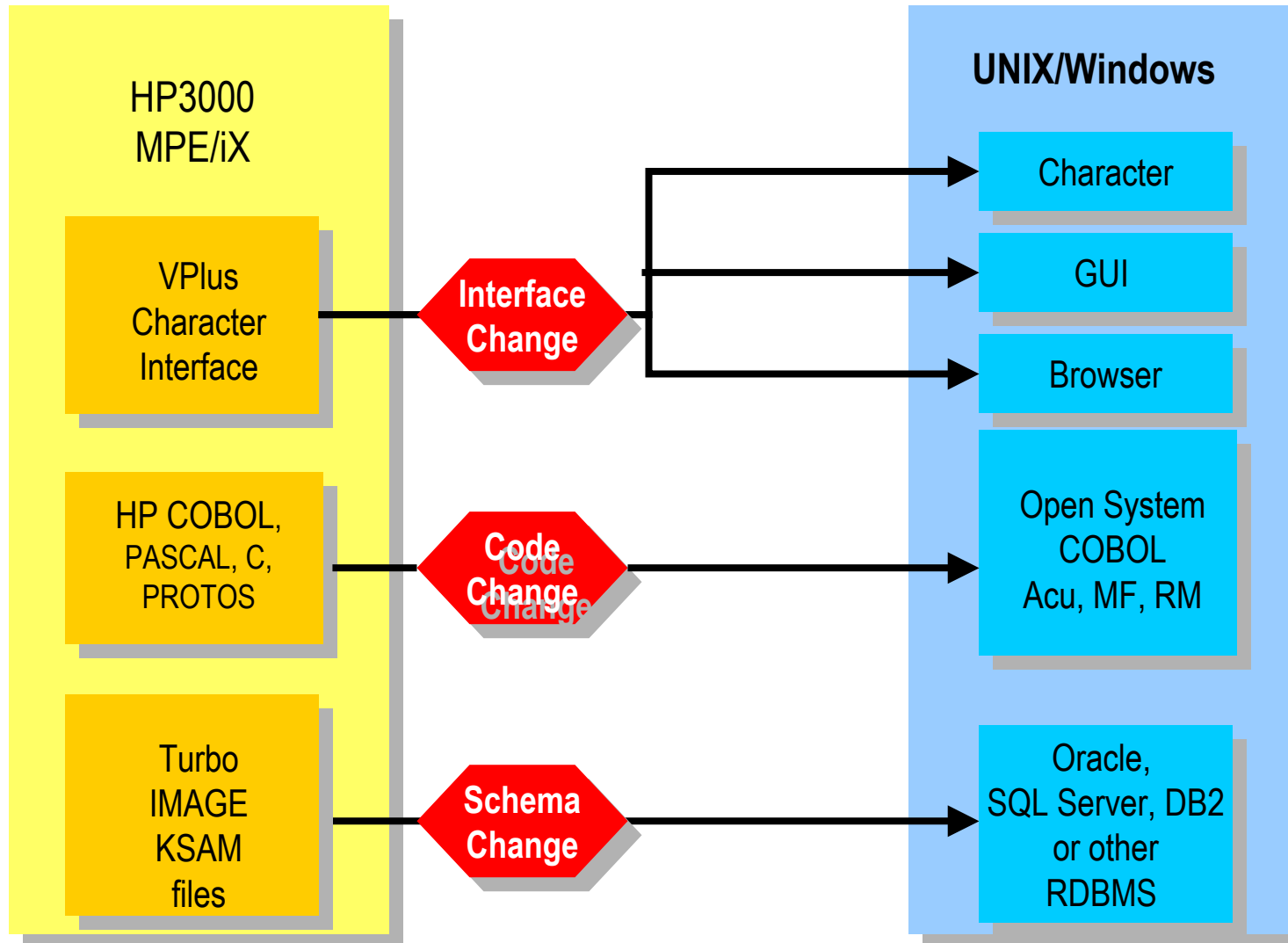
MAXEXTENTS 120);

```
24      */
24      */
24      */
24      */
24      */
210     */
22      */
22      */
```

Transoft

- Solution sold as Consulting Service
- How it works
 - Source code statistics sent to Transoft
 - Quote provided based on code complexity
 - Based on acceptance, code sent to Transoft
 - Converted code installed/tested at customer site with Transoft or PP

Transoft Offerings



Sungard Bi-Tech

- Transport
 - HP Cobol to Microfocus Cobol
 - Pascal to C
 - Includes MPE emulation
 - Includes VPlus emulation
- Proven
 - Been used for many years against many applications
- Only sold through a 3rd party consulting organization

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

- 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.”

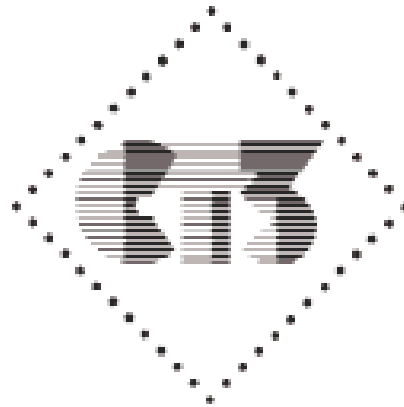
David Goodman
Senior Vice President
of Product Development
for Ceridian



CT3, Inc.

CT3, Inc. – Business Overview

- Established in 1992 to meet the business and software needs of the timber and wood product industry



Challenges

- Migrate from an HP e3000 to HP 9000 for large customer
- 1995, HP-UX fairly new OS

Characterize the HP e3000 environment



- 3000 programs
- 1M lines of code
 - 100% Speedware

Solution

- Conversion from the HP e3000 to HP 9000 servers
- Speedware/Designer
- 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

Lessons learned - importing/exporting files

- MPE has fixed record structures, like 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”

Database / file interface

- Replacing Image, KSAM, and specialized flat files with alternatives on other platforms creates new challenges
 - Data Structure Changes
 - Data Type Changes
 - Variable Name Changes
 - Database / File Access Changes
 - Data Migration

Lessons learned - batch jobs

- 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
 - Would require additional cost and new tool to learn
- Wrote own tool to handle:
 - Multiple Job Queues
 - Mass-launches

Lessons learned - 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

Comparing Oracle to TurboIMAGE

- TurboIMAGE does one thing very well.
 - Simple Online Transaction Processing
- Oracle does a lot of things very well
 - Simple Online Transaction Processing
 - Complex Online Transaction Processing
 - Ad Hoc Queries
 - Data Warehousing
 - Easier integration with PC-based packages (MS/Office, etc.)
 - *etc. etc. etc.*

Let's face it

- Oracle is a much more full-featured product than TurboIMAGE is.
 - It can do a lot of things better than TurboIMAGE
 - Therefore, it needs more system resources than TurboIMAGE.
- So what are your performance options?

Business and technical results



- Increased options
- High performance
- High reliability
- Satisfied their largest customer's requirements

“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.



northAmerican
Logistics

northAmerican Logistics

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



northAmerican Logistics

- 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.”



Virginia
International
Terminals

Virginia International Terminals

- Smooth sailing for Virginia International Terminals



VIT – Business overview

- 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

Characterize the HP e3000 environment



- Cobol and IMAGE
- Speedware
 - 35 applications
- Omnidex
- Pascal moved to C
 - on HP e3000 as preparation for migration
- Specialized RF hand-held terminals used in shipyards

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 classroom education courses and free Web-based courses
- Speedware migration services
- Turbolmage to Oracle9i conversion tools
- Speedware Autobahn II
- C (former Pascal) programs migrated
- Bridgeware used for real-time data synchronization during migration

Business and technical 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 and free 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

where to go for more information

<http://www.hp.com/go/e3000partners>

The screenshot shows the HP e3000 partners website. The address bar displays <http://www.hp.com/products1/mpeixservers/partners/index.html>. The navigation bar includes links for [hp home](#), [products & services](#), [support](#), [solutions](#), and [how to buy](#). The main heading is "hp servers : mpe/ix servers" followed by "teaming up with hp e3000 channel partners". A link for "printable version" is available. The left sidebar contains links for "hp e3000 business servers", "search", "contact hp", "hp servers home", "hp e3000 business servers home", "news & events", "product comparison", "technical support", "downloads", "how to buy", and "partners" (with sub-links for solutions and storage). The main content area is titled "e3000 transition partners program" and lists several resources: "transition options by component", "hp e3000 platinum program", "hp e3000 transition services partners (pdf)", "hp e3000 transition tools partners (pdf)", "hp e3000 customer transition case studies", and "hp e3000 partners with similar products on other platforms (pdf)". A paragraph describes the HP e3000 Partners program and includes a "register" link. A yellow box on the right says "transition from the hp e3000". Two red arrows point to the "transition services partners (pdf)" and "transition tools partners (pdf)" links, with text indicating they are complete lists of migration services and tools.

Address <http://www.hp.com/products1/mpeixservers/partners/index.html>

hp UNITED STATES

[hp home](#) [products & services](#) [support](#) [solutions](#) [how to buy](#)

hp servers : mpe/ix servers

[printable version](#)

teaming up with hp e3000 channel partners

hp e3000 business servers

- [search](#)
- [contact hp](#)
- [hp servers home](#)
- [hp e3000 business servers home](#)
- [news & events](#)
- [product comparison](#)
- [technical support](#)
- [downloads](#)
- [how to buy](#)
- partners
 - [solutions](#)
 - [storage](#)

e3000 transition partners program

Updated: June 24, 2002

- [transition options by component](#)
- [hp e3000 platinum program](#)
- [hp e3000 transition services partners \(pdf\)](#)
- [hp e3000 transition tools partners \(pdf\)](#)
- [hp e3000 customer transition case studies](#)
- [hp e3000 partners with similar products on other platforms \(pdf\)](#)

HP e3000 Partners: HP is developing an HP e3000 Transition channel partner program. This program helps customers easily locate transition resources. If you are a tools provider or consultant, please [register](#) to find out more about this program.

[transition from the hp e3000](#)

complete list of all the migration services partners

complete list of all the migration tools!!!

where to go for more information

http://www.hp.com/products1/mpeixservers/future/quick_ref.html

hp servers : mpe/ix servers

hp e3000 transition quick reference guide

→ [printable version](#)

As you assess and plan your HP e3000 transition, use this quick reference guide to determine which of the many programs offered by HP and its partners can be of assistance to you.

[order your transition solutions portfolio today](#)

quick reference guide topics

- [hardware and software programs](#)
- [hp partner key offerings](#)
- [training and education programs](#)
- [services and financing programs](#)
- [tools](#)

complete guide to all the transition programs

hp e3000

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

Transition solutions portfolio

■ General Information

- HP e3000 Roadmap Quick Reference Guide
- 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

Services

- 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