Tru64 UNIX to HP-UX: Tips, Tools and Resources for Planning the Transition

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HP WORLD 2003

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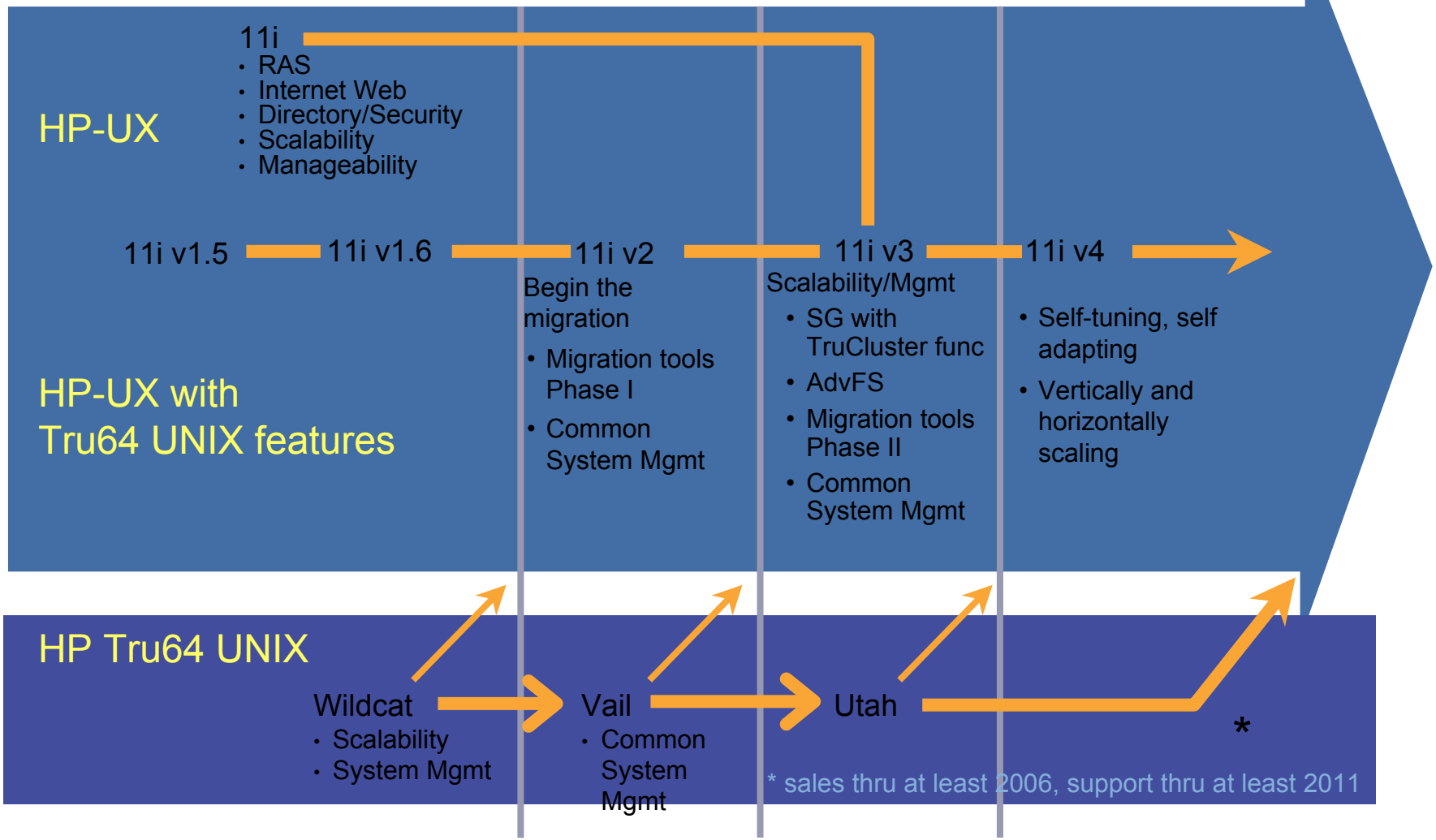
Agenda

- What Transition?
  - Tru64/AlphaServer Road Map
  - Goals
- Transition Planning…
  - Approach
  - Framework
    - Customer activities
    - Complementary HP offerings
- Targeted Customer Ecosystem
  - Platform Infrastructure
  - Database
  - Custom Developed Application Code
  - Partner Applications
- Resources to Help…

UNIX O/S roadmap
HP-UX and HP Tru64 UNIX



customer value—investment protection and a better HP-UX

Customer goals

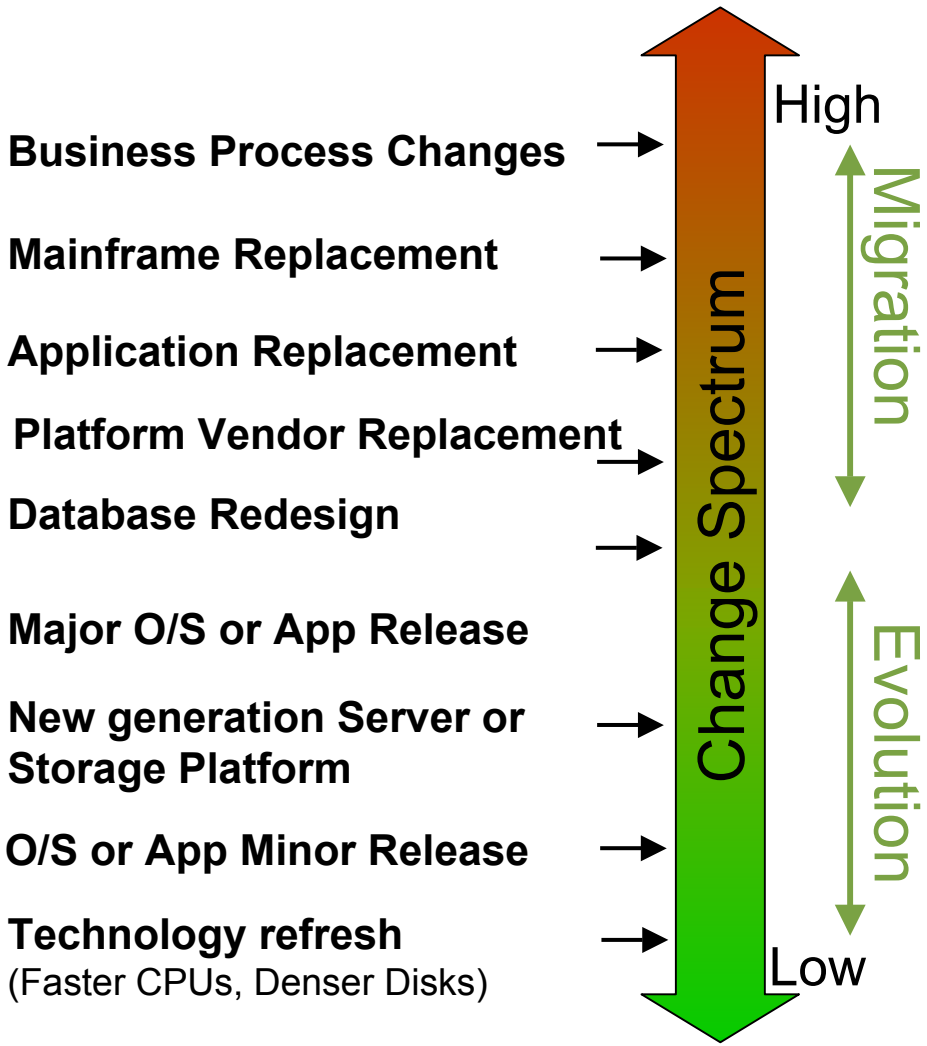
What our customers tell us they would like to see in a transition

- Preserve integrity of solutions architecture
- Deliver value with change
  - Exploit opportunities for clean-up
  - Use transition to re-align with future business needs

- Minimize disruptions
  - Continued business critical operation during transition
- Minimize incremental demands on staff
  - Services are essential
- Investment Protection

- No surprises during transition lifecycle
  - Careful planning is paramount
- Customers will decide timing of transition.
  - Transition aligned with business timetable & other customer planned changes

Transitions & technology driven change



- Not all change is equal
- HP offers the best alternatives for preserving our customer's solution architecture while extracting incremental value
- HP Tru64 UNIX® and AlphaServer roadmaps provide great flexibility to align transition plans with our customer's own business timetable

Migration

- Why migrate with HP?

  Best Enterprise UNIX
  - Industry's best enterprise UNIX
  - Broad application portfolio
  - TruCluster features best preserve customer's solution architecture

  Itanium® 2 Platform
  - Exploits industry standard dynamics & economics
  - Universal Platform: UNIX®, Windows® Server and Linux

  Compelling vision for the future
  - hp Utility Datacenter years ahead of IBM Eliza
  - Complementary ENSAextended storage vision

  Evolutionary migration options supported by a single vendor

  We understand the unique needs of Tru64 UNIX® / AlphaServer users better than anyone else!

Migration scenarios

- **Early Adopter**: HP-UX 11i v2 on Itanium®
  - HP-UX Business Critical UNIX® features on an Itanium® Platform
  - Starting CY'03+, driven by solutions availability
  - Candidates: Systems or system elements without strong dependence on Tru64-unique features

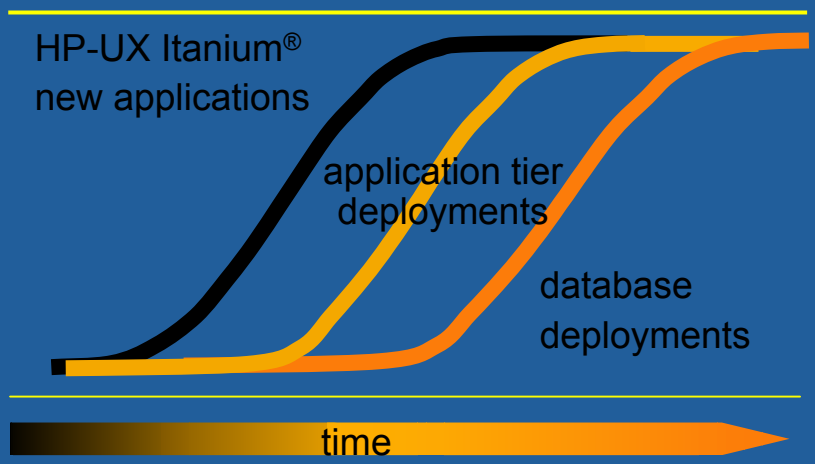
- **Conservative Path:** HP-UX 11i v3 on Itanium®
  - Key Tru64 UNIX®-unique features incorporated into HP-UX
  - Starting H2'04+
  - Candidates: Databases, systems with large AdvFS filesystems, other TruCluster dependencies

- **Today:** HP-UX 11i on PA-RISC
  - Rich application portfolio today
  - Straight-forward future Itanium® migration, including selective in-cab Itanium® server upgrades
  - Candidates: New systems, major solutions upgrades, customers concerned with Tru64 application availability

- **Staying with Alpha**
  - Timeframe: through 2011--
  - Systems with stabilizing functional requirements
  - Systems where 'mission' lifetime fits comfortably with Tru64 UNIX® upgrade and support window

Transition timeline

start time determined by customer / application environment



elapsed time determined by customer / application environment

Seamless interoperability and integration in existing environment

Facilitate customers ability to take advantage of Itanium®-based technology in their current solution environments

1st wave: new deployments on HP-UX Itanium

- Early exploitation to avoid transition
- New applications
- Existing applications redeployed on Itanium-based systems
- Interoperability features

2nd wave: applications tier deployments

- Working with ISVs on application roll-out
- Take advantage of “platform independent” applications tier and implement HP-UX Itanium platform without business disruption
- Experience the reliability and ‘ease of management’ of the HP-UX Itanium platform

3rd wave: database tier deployments

- Use optimized DB migration process/practice and business terms
- Development of tools and services to enable a transition that is non-disruptive to customer business operations

Model for Transition Planning: Plan-Design-Implement-Manage (PDIM)

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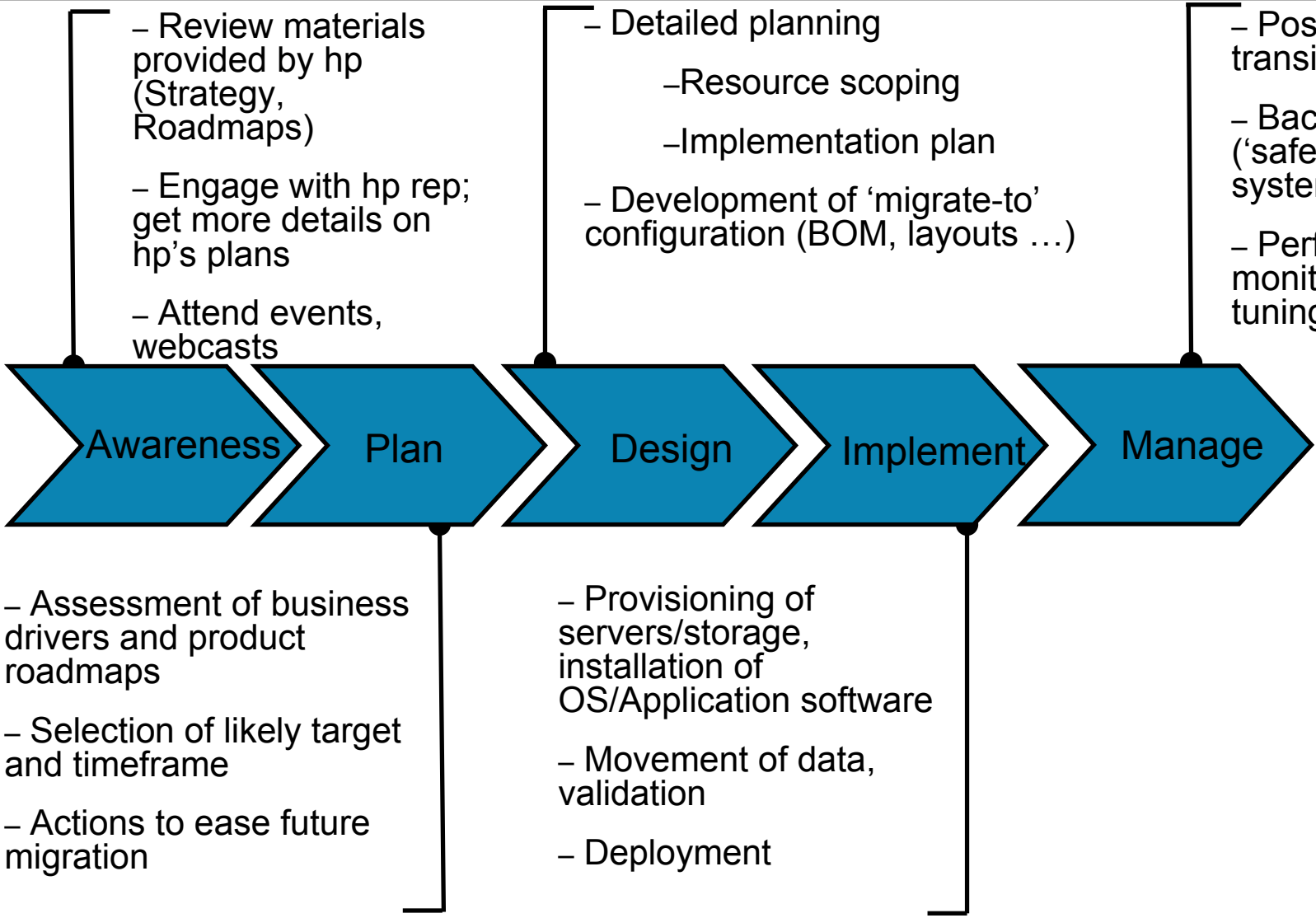
The approach

- Customer
  - Determines business needs
  - Defines optimal IT strategy
  - Identifies best timeframe
- Hp transition engineering – focused team at hp
  - Developing a comprehensive set of tools and services
  - Addressing the transition in its entirety
- Constraints
  - Special consideration to current business conditions
  - Risk mitigation and cost containment are key.
  - Maintaining focus on continuous operation throughout stages of transition.

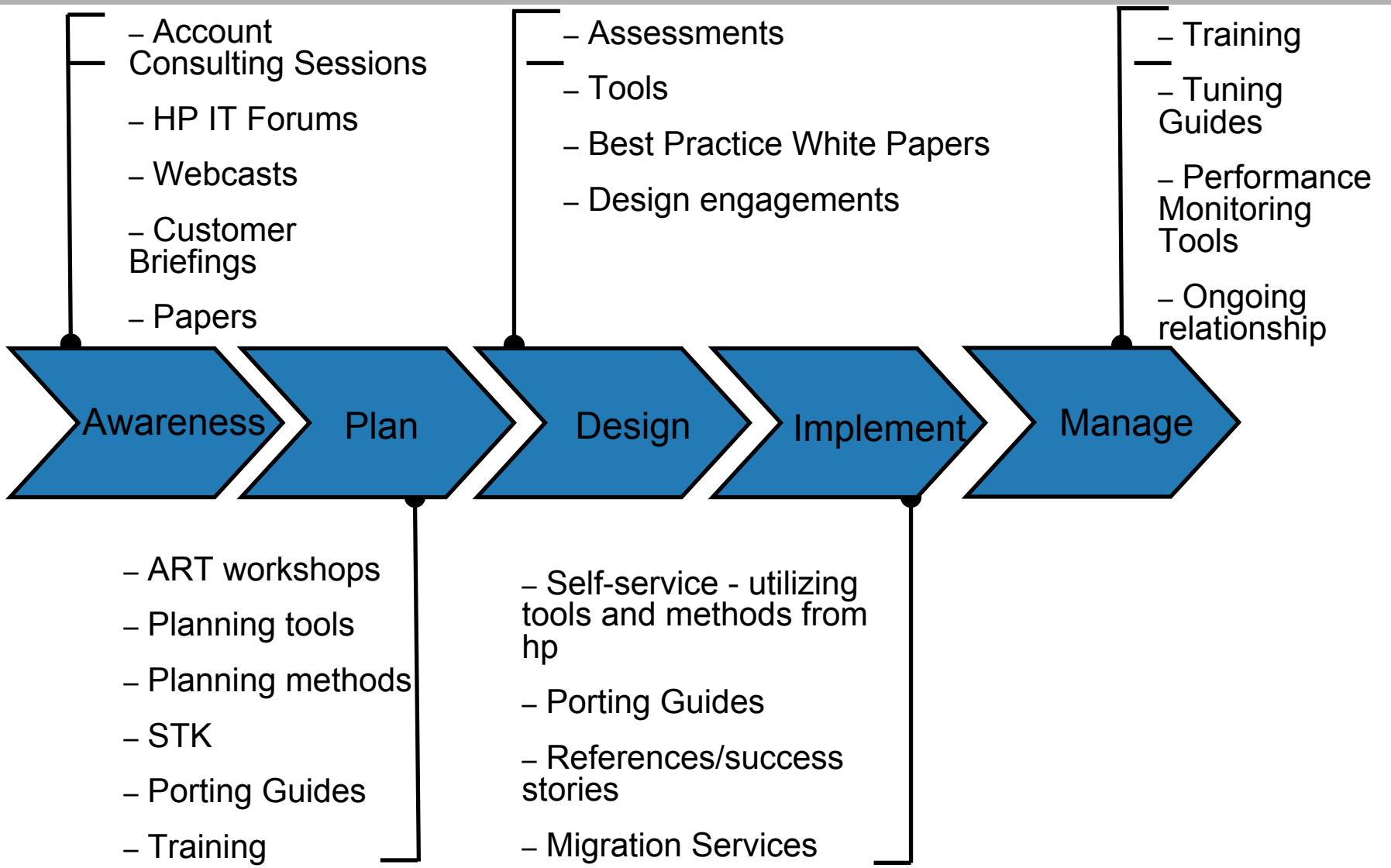
The framework

- Breaking down the ‘phases’ of the transition task
  - Awareness
  - Planning
  - Design
  - Implementation
  - Manage/Steady State
- Provides a comprehensive way of looking at transition
  - Focus on an end-to-end solution

Framework: customer activities

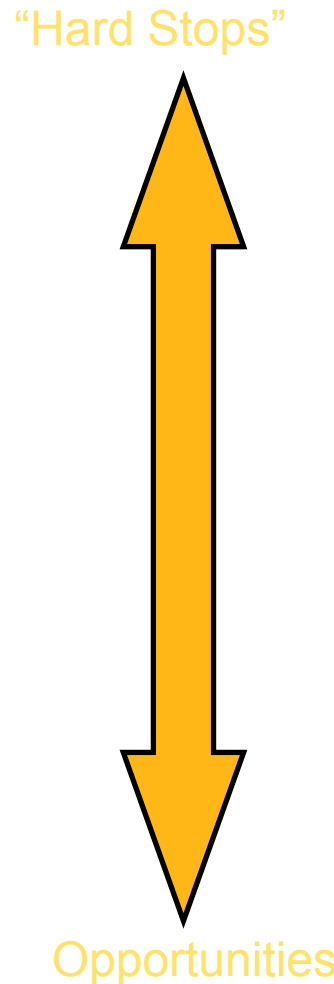


HP tools and services available at each stage

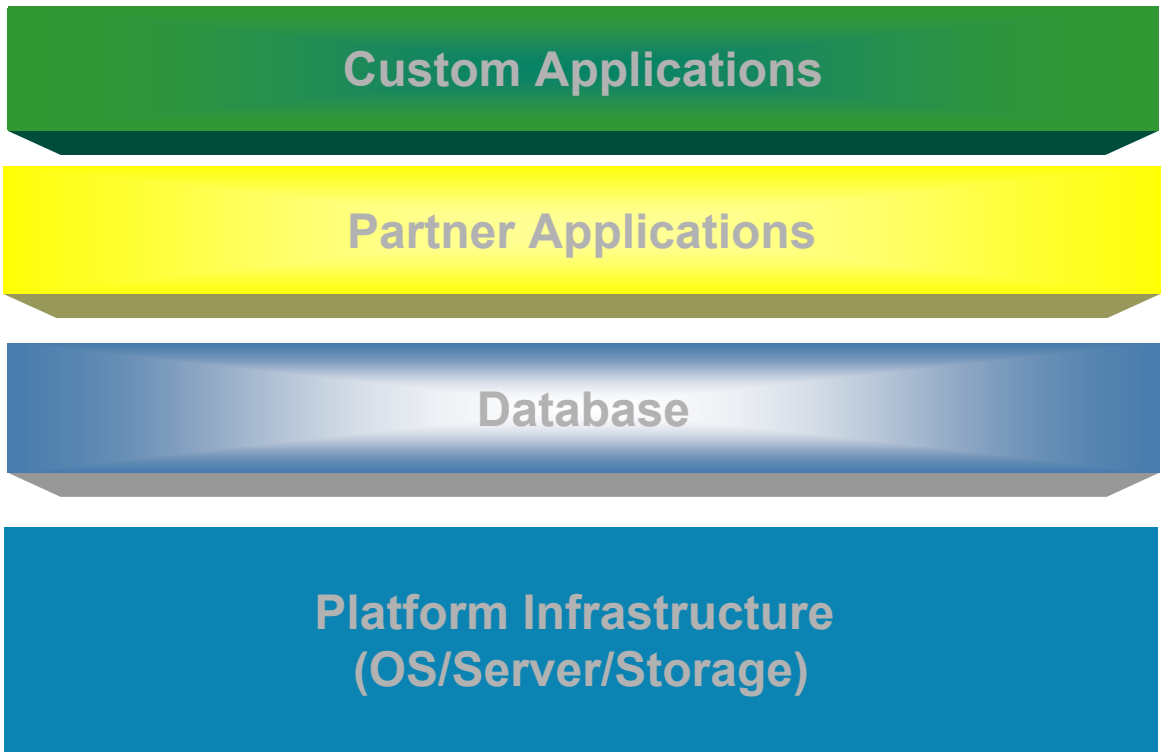


Transition drivers

- Environment end-of-life/support
  - Servers
  - OS
  - ISV applications
- Need to meet increased performance/capacity demands
- New technical opportunities
  - Compelling features/capabilities that map to vision/growth/support of the business
- Business opportunities
  - Cost savings
  - Server consolidation
  - New/evolving business requirements
  - Database consolidation
  - Mergers/business consolidations

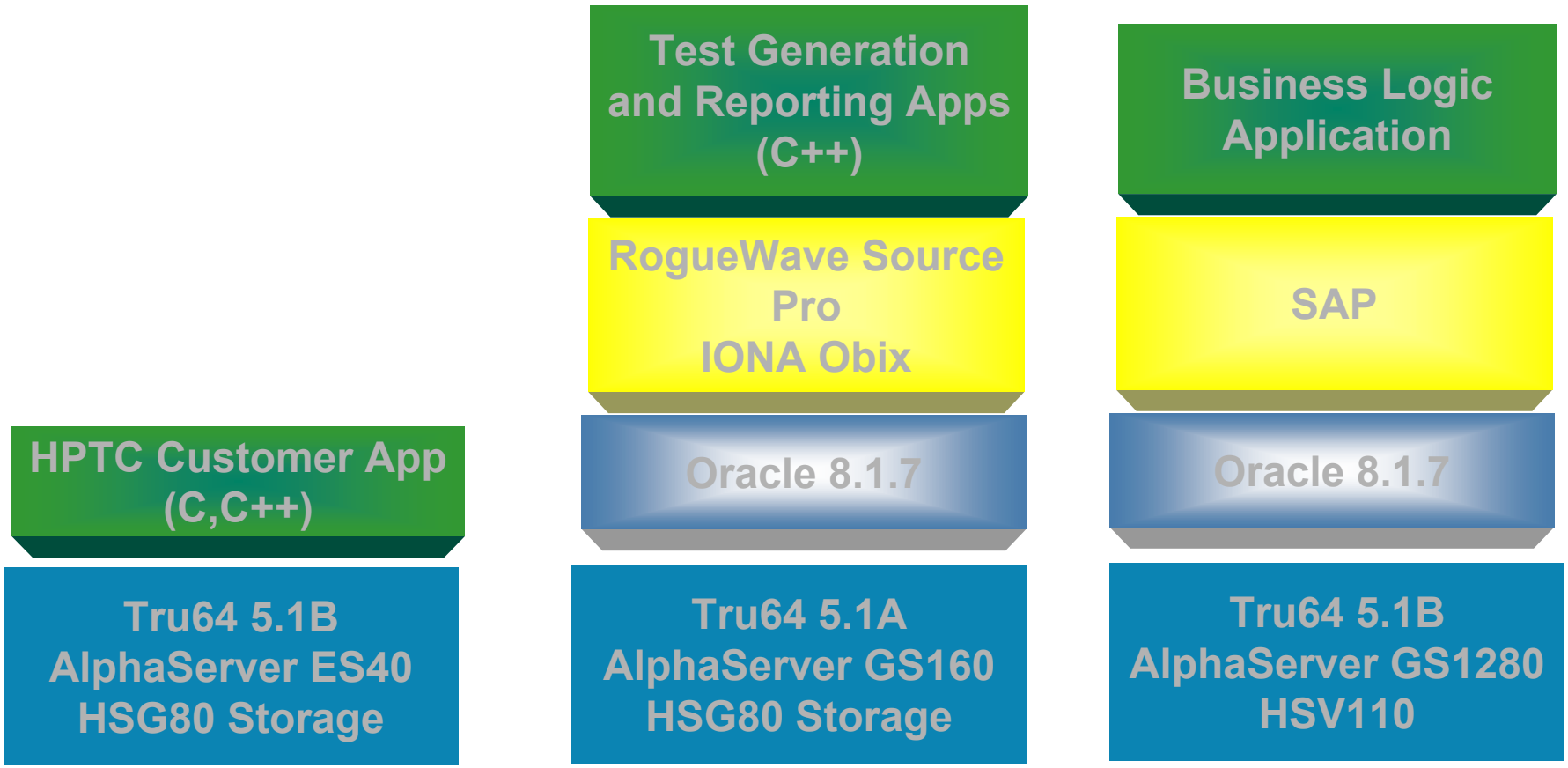


Customer ecosystems to be addressed

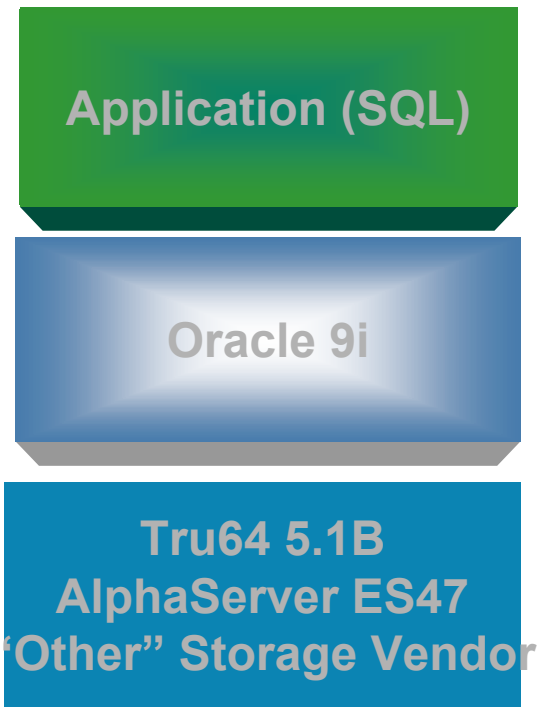


- Solution defined by modular components working together across a "stack"
- Targeted to different "user communities"
  - Database for DBA management
  - Platform Infrastructure for IT management
  - Custom code solutions for application developers
  - Partner application for business/IT management

Some examples



More examples



Identifying the impetus

- Pure custom code environment
  - Can ride out until end of Tru64/Alpha support in ‘11
- Major partner application – Will support 5.1B, with current and next application release
  - What is the typical life cycle of the ISVs application releases?
- Other ISVs
  - Is 5.1A the last version of Tru64 application support?
- Performance and scaling – expect regular Scaling and CPU speed ups
  - EV78 last AlphaServer speed up in ’04

Benefits of the transition framework: Plan-Design-Implement-Manage

For the customer:

Provides a staged approach, with heavy emphasis on up-front planning; to mitigate risk…

Provides you with a framework for how to approach your transition planning.

For hp:

Provides a comprehensive way of looking at the task.

- Helps to identify areas needing focus.

- Provides an end-to-end solution focus so hp can provide a more complete solution for you!

Packaged Applications: The ISVs…

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Leading Partners Committed to Tru64 UNIX®

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Recently completed discussions with Top 12+ ISVs aligning application roadmaps with Tru64 UNIX® and HP-UX/Itanium® release plans

- Other ISV discussions on-going
- Virtually all key ISVs commit to continue functional enhancements of Tru64 UNIX® application release throughout 2003
- Commitment timeframe consistent with ISVs current planning horizon
- Some ISVs may stabilize functionality in 2004 while providing continued support
  - Infrastructure ISVs may offer further enhancements in 2004
  - Anticipate bridging application releases, supporting both Tru64 UNIX® and HP-UX/Itanium®, from most key ISVs
- Allows application upgrade issues to be addressed separately from platform transition

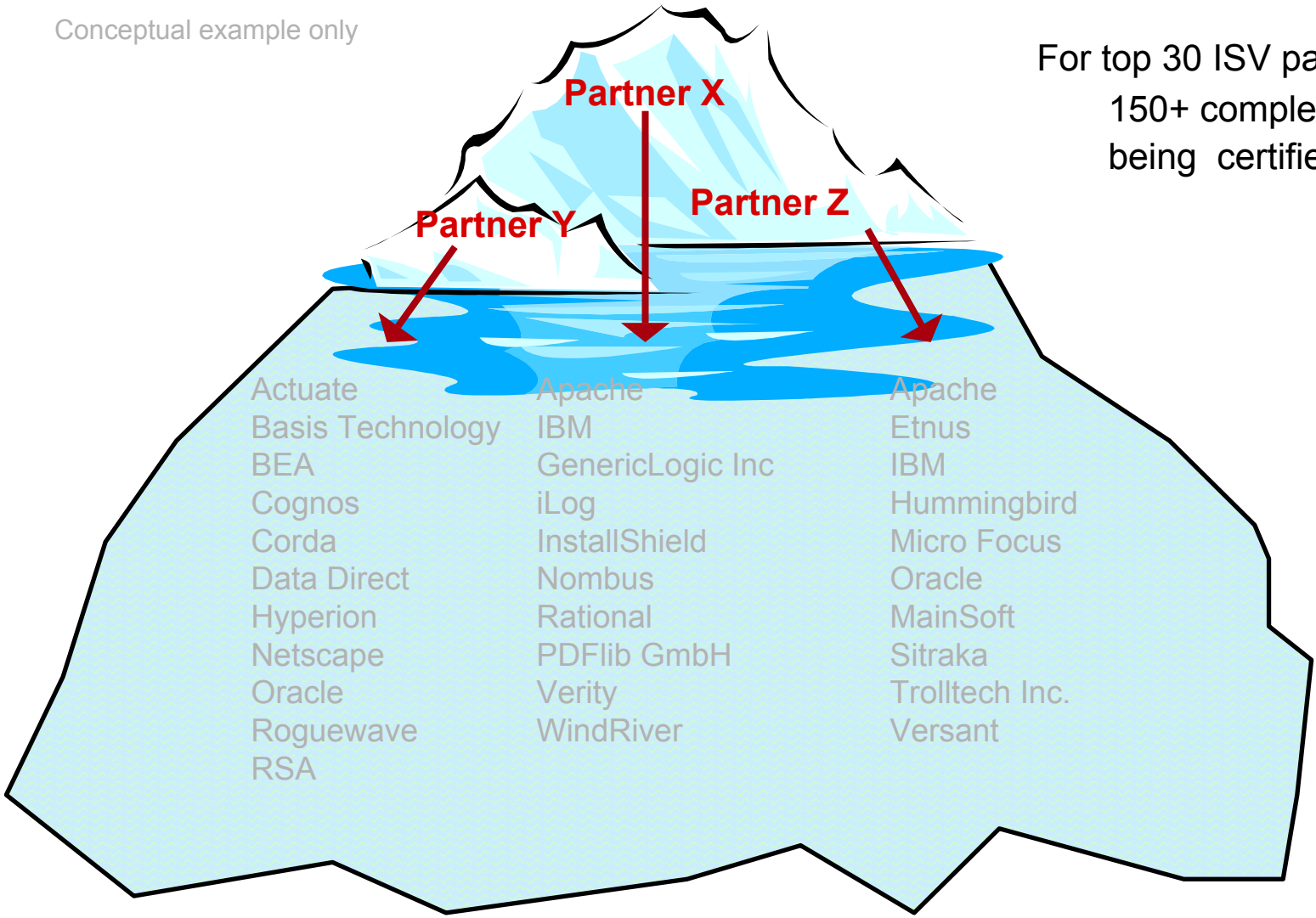
Discussions with ISVs around development of joint migration best practices for our mutual customers

Finding the timing windows …

- Starting with the ISVs roadmaps…
  - Tru64/AlphaServer
    - When will Tru64 no longer be a viable platform for application
      - Tru64 version of the current release – 5.1A, 5.B?
      - Future Versions of Application - will any more updates on Tru64 be coming
      - Life Cycle – once delivered on Tru64, typical support duration
  - HP-UX/IPF
    - When will comparable functionality application be available on HP-UX/IPF
      - Which HP-UX version
  - HP-UX/PA
    - In almost all cases, application will be available on PA today with a healthy road map

Don’t overlook hierarchical dependencies ….

Conceptual example only

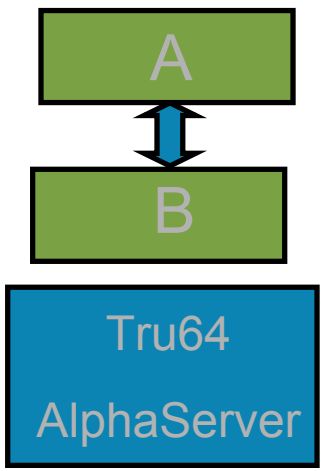


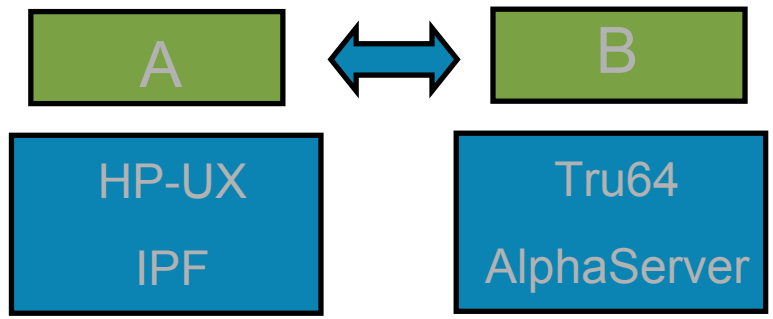
For top 30 ISV partners:

150+ completer applications being certified

Evaluate application structure

- Is there internal layering in the application?
  - Client/Server
  - Tiers
- Ideally application moves to new platform as is, but if particular pieces (ISVs) have very different timing windows
  - Evaluate splitting out components for early/late migration

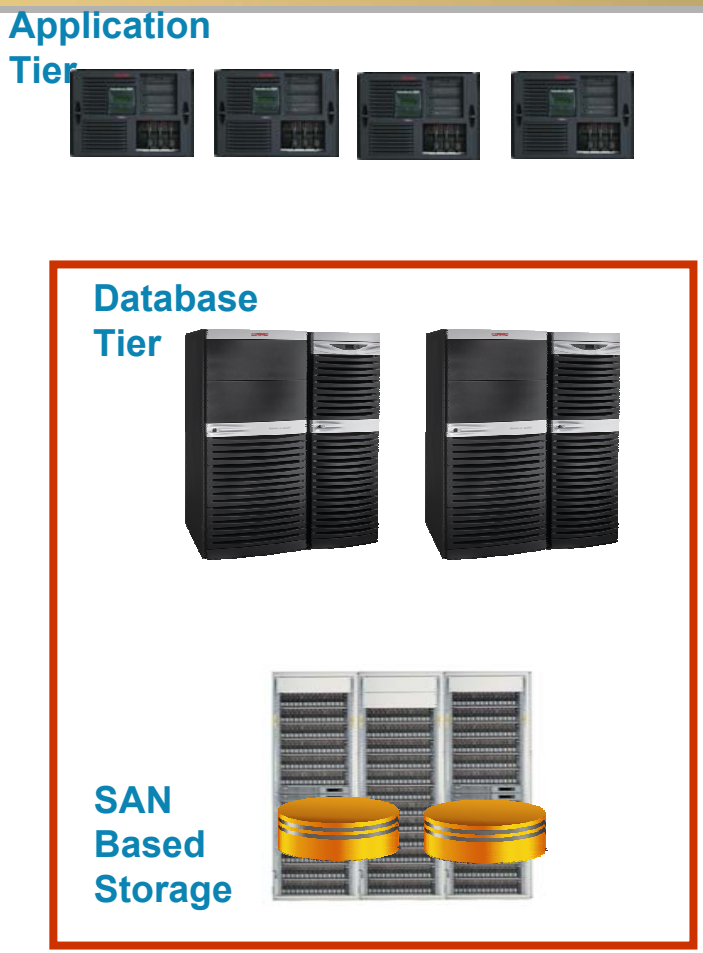




Multi-tier environments – application tier

- Many partner based solutions employ multi-tier architectures
  (a/k/a client/server)
- Application Tier:
  - Contains business logic
  - Isolated from database tier via database connectivity and middleware.
    Main sensitivity is to database versions
  - Limited dependencies on Tru64-unique features
    Good fit with HP-UX 11i or 11i v2
  - Relatively straight-forward to migrate
  - “Forgiving” availability model permits deployment of new technologies earlier in maturity lifecycle

Multi-Tier environments - database tier



- Database Tier
  - Anchors solution-level availability, most sensitive to down-time and technology maturity
  - Requires vendor-specific data migration due to low-level platform sensitivities (endian-ness, O/S datatypes …)
    Involves migration 'heavy lifting'
  - Customer solution may have dependencies on Tru64-unique features (AdvFS, TruClusters)
    If so, HP-UX 11i v3 provides these features
- Tiers may migrate on different schedules
  - Application tier probably earlier (HP-UX 11i v2)
  - Database tier potentially later (HP-UX 11i v3)
- Monolithic systems can often be separated into tiers

Evolution of the applications tier: example: SAP® R/3

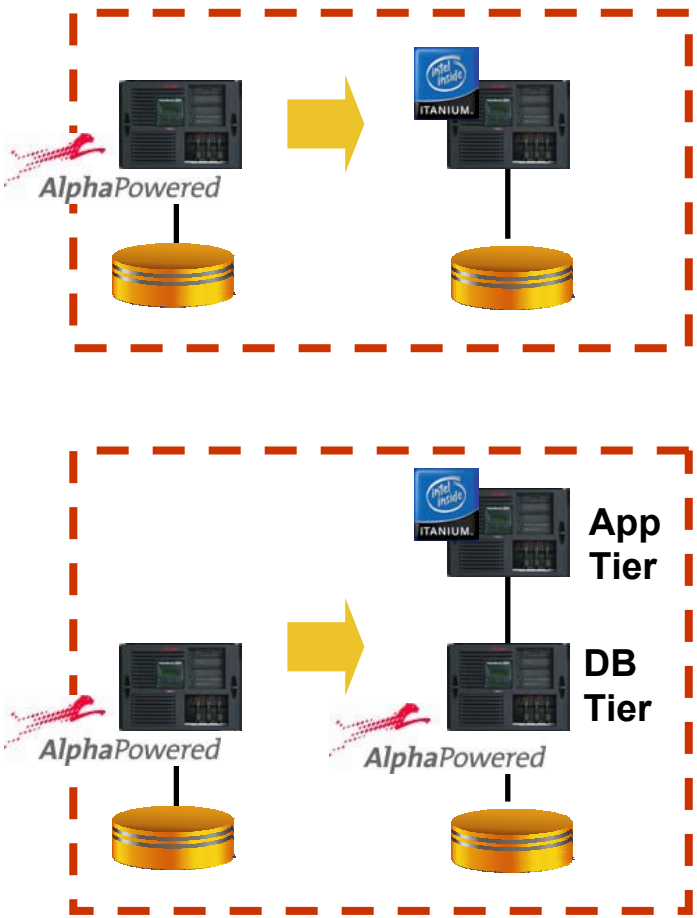
Application Tier

Database Tier

SAN Based Storage

- Customers can begin their transition by incrementally adding Itanium® capacity to their existing AlphaServer™ based system
  - Itanium®-based systems run same version of application as AlphaServer™ systems
  - HP focusing on integration testing and best practices for heterogeneous systems operation
  - Integrated services preserve benefit of single vendor during transition period
- While it is theoretically possible to create heterogeneous configurations with other UNIX® vendors, HP offers the benefit of single vendor end-to-end integration and “one-stop-shopping” accountability

What about standalone 'host-based' configurations?



- Host-based configurations combine both application and database application on a single server. Typical deployments:
  - Small/medium scale deployments
  - ERP Development and test systems
  - Telecom BSS systems
- Transition options:
  - Maintain single-tier topology, with 'flag-day' transition of entire system
  - Split central server into separate application and database tiers
    - Simple configuration option for many systems
    - By removing application cycles from database server, increased database server capacity significant extends time before database tier transition will be needed

Other considerations – will you need to upgrade on Tru64 before moving to new environment?

- Many customers are running older versions of application and database software
- Example
  - SAP system will need to be at 4.6C (or later) to before migrating the application tier to HP-UX/Itanium®

    Significant SAP version upgrades can have greater impact than platform migrations
  - SAP system will need to be at Oracle 9i Release 2 before migrating the database tier
  - SAP has it's own unique database migration process and require engagement of certified SAP migration consultants

Applying phased migrations to traditionally standalone systems

- Example: CSG Arbor/BP
  - Well know telecom billing application
  - Contains both application and Oracle database element, by traditionally deployed on single system
  - Problem: CSG recinded future release support for ArborBP (v11.0) on Alpha
  - Solution: Joint CSG / HP sponsored integration testing of mixed configuration
    - rp7410 / HP-UX apps node
    - GS160 / Tru64 db node
  - Results: Similar or better performance while preserving customers database investment

Value-added engineering: tools for 'how to get started' - packaged applications

- A view into initial planned deliverables…
  - Roadmap alignment/mapping of platform choices
  - Planning Tools to assist in your transition
    - Hardware upgrade sizing
    - Checklist of items to prepare and research
    - Version, patch and dependency validation
  - To obtain help with developing your customized roadmap 'stack', contact your hp representative.
- Future Deliverables:
  - Tuning Guides for customers for key ISVs (platform→ application)
  - Configuration Guides for customers for key ISVs (platform → application)

Platform Infrastructure

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Considerations for platform infrastructure…

- Considers the general question of “How do I get from here to there?” … from a base system perspective…
  - How do I map my current Alpha system into the current/future Itanium®-based systems?
  - What storage subsystems are supported on Itanium®?
    - Can I utilize my current storage on this new platform?
  - What are the differences operationally?
    - System Administration tasks
    - Backups
    - User environment differences – User Interfaces

Addressing considerations of platform infrastructure…

- System Hardware
  - Provisioning tool/guide that maps system across performance, price, capacity, I/O
- Operating Systems
  - Release and Support Road Maps
- Storage
  - Tru64 UNIX® and HP-UX will co-exist on common SAN infrastructure as part of heterogeneous datacenter
  - Support for StorageWorks arrays on both Tru64 UNIX® and HP-UX
  - Parallel SCSI-based direct-attached storage technologies will not directly migrate
  - Data migration, storage consolidation, backup and SAN implementation services are offered
- System Administration Staff
  - Minimize the time for experienced Tru64 administrators to becoming productive on an hp-ux system
  - Minimize the operational complexity of transferring selected sysman functions from tru64 to hp-ux

HP AlphaServer evolution

GS80
GS160
GS320

GS1280
8p, 16p

GS1280
32p

GS1280
64p

CPU: EV7 1.15GHz
Type: new-box
OS: HP Tru64 UNIX, HP OpenVMS

CPU: EV79
Type: in-box
OS: HP Tru64 UNIX, HP OpenVMS

Superdome

CPU: Itanium next gen.
Type: new box
OS: OpenVMS
HP-UX 11i v3
Linux
.NET

rx86xx

CPU: Itanium next gen.
Type: new box
OS: OpenVMS
HP-UX 11i v3
Linux
.NET

ES45

ES47

ES80

CPU: EV7 1GHz
Type: new-box
OS: Tru64 UNIX, OpenVMS

CPU: EV7 1GHz
Type: new-box
OS: Tru64 UNIX, OpenVMS

CPU: EV79
Type: in-box
OS: Tru64 UNIX, OpenVMS

rx76xx

rx56xx

CPU: Itanium next gen.
Type: new box
OS: OpenVMS
HP-UX 11i v3
Linux
.NET

DS10,
DS10L
DS20E
DS20L
DS25

DS15

CPU: EV68 1GHz
Type: new-box
OS: Tru64 UNIX, OpenVMS

rx2600

CPU: Itanium next gen.
Type: new box
OS: OpenVMS, Linux
HP-UX 11i v2, .NET

CPU: Itanium next gen.
Type: in-box
OS: OpenVMS
HP-UX 11i v3
Linux
.NET

2003

2004

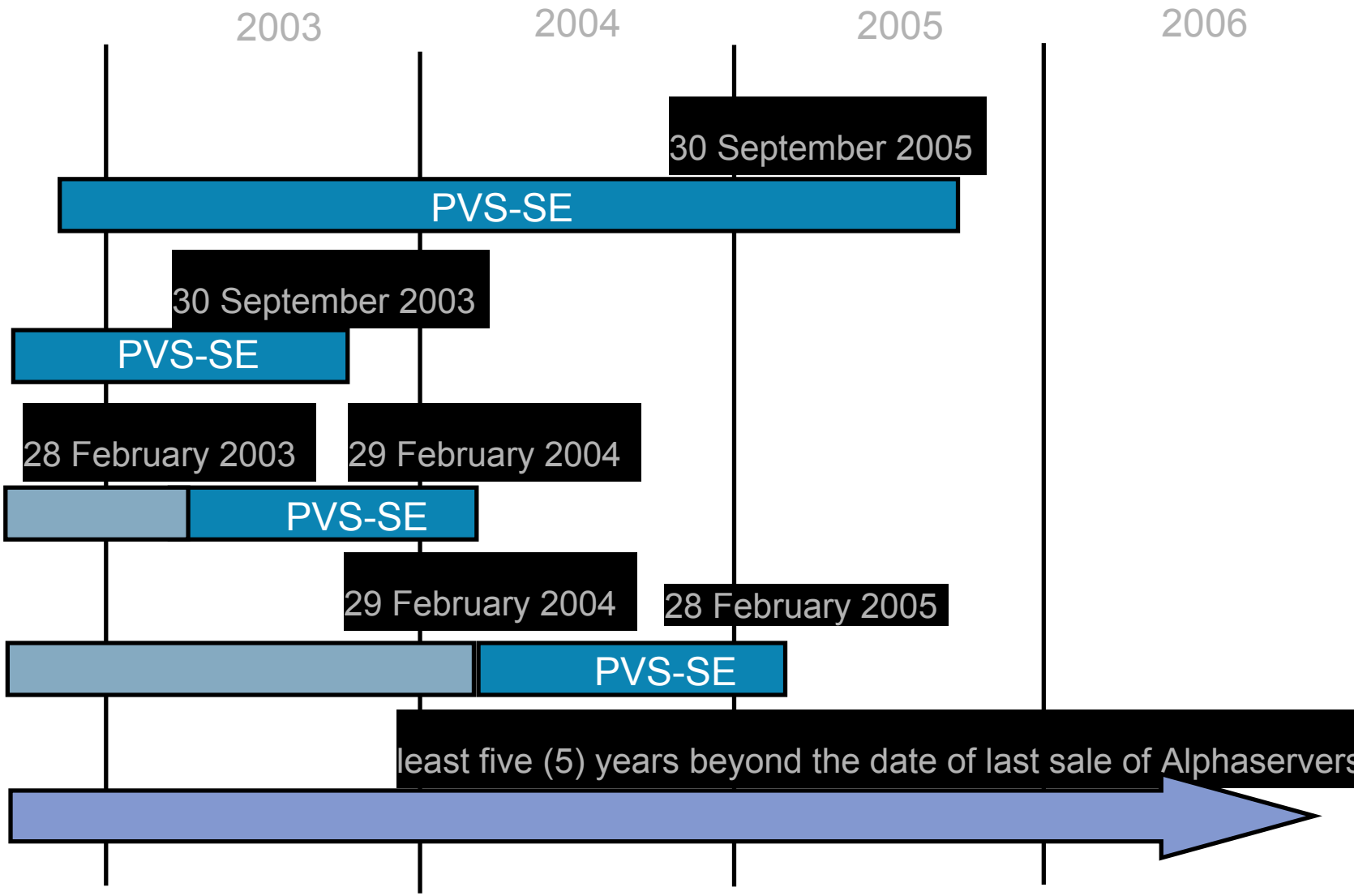
2005

subject to change without notice – current as of April 1, 2003

System sizing examples

- Based on internal tool provides an estimated “OLTP TPM” number
  - AlphaServer 8400 12 24530
  - ES45 EV68/1000 4 49500
  - Rx5470 1GHZ 4 68000

Tru64 Unix® O/S support windows



HP Tru64 UNIX®/HP-UX Storage Co-Existence

- Tru64 UNIX® and HP-UX to co-exist on common SAN infrastructure as part of heterogeneous datacenter
  - Common SAN Fabric
  - Common Data Management Software
  - Common Tape Libraries
- Support for StorageWorks arrays on both Tru64 UNIX® and HP-UX
  - StorageWorks EVA
  - StorageWorks XP
  - Storage Works MSA1000 (2H 2004)
- Support for HSG80 arrays on HP-UX on the Itanium processor family
- Parallel SCSI-based direct-attached storage technologies will not directly migrate
  - HSZ40/50/70/80
  - JBOD SCSI Storage
  - Backplane RAID
- Data migration, storage consolidation, backup and SAN implementation services are offered

Transition help for the system administrator: "how do I get started?"…

- Provide training aids that are targeted to the development of critical skills
  - Focused Training on HP-UX administration for Tru64 sysAdmins
    - Webcasts : hp Tru64 unix to hp-ux: a side by side comparison
    - Web-based courses (including a soon to be announced program for web-based courses at "no charge" with the e-coupon)
      self-paced, web-based training
      available on-line, 24x7, at no charge, by registering with e-coupon
      first course: Tru64 UNIX to HP-UX System Administration Differences (about 2 days)
    - Additional web-based courses, offered by hp educational services
      Essentials of HP-UX
      HP-UX file management HP-UX job control
      Tips, tools, techniques for HP-UX end users

Transition help for the system administrator: "how do I get started?"…

- Classroom courses (at hp site or at your customer site)
- Development of migration aides that simplify movement of scripts
  - Tools that scan script sources produces HTML report identifying issues to be resolved and guidance on how to resolve them
- Provide whitepapers and "best practices" with suggestions and guides for achieving maximum productivity
  - Migration "how-to" Guide

Database Migration

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A Word About Database Migrations…

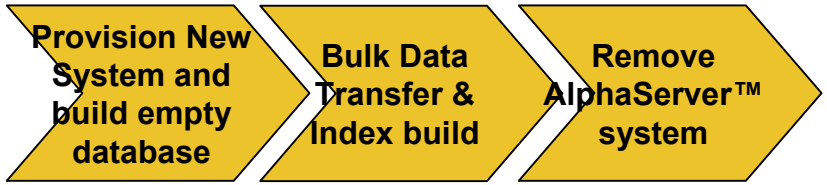
- This isn't new!!!
- HP has successfully migrated large databases from Tru64 UNIX® to HP-UX in the past
  - we used to be competitors …
- None of the leading database vendors support direct movement of binary data between different O/S
  - Tools and services exist today to migrate customers
- Opportunity exists to "value add" to current offerings for our customers

Database migration 101

- Database migration typically involves:
  - Provisioning new (target) database server
  - Transfer of database layout, schemas, triggers, stored procedures
  - Bulk transfer of data tables
  - Build indices
  - Optionally: Application of recent updates if bulk transfer based on point-in-time copy
  - Optionally: Support side-by-side operation during trial period

Database migration scenarios

Smaller Less Critical Database



Large Mission Critical Database

Snap-shot permits production database to remain on-line during bulk data transfer

Database migration: engineering optimized solutions

- Development of optimized processes focused on selected vendors and targeted customer scenarios
  - Based upon intimate knowledge of the “from” and “to” states
- Remove the ‘rocket-science’ element
  - Predictable
  - Repeatable
  - Scalable
  - Documented
- Customer Results
  - More efficient and cost-effective database migration
  - Some customers can be self migrating

ORACLE database migration: scenario definitions

- Multiple Scenarios
  - Static Migration:
    - Low complexity approach for moderate databases
    - Semi-Static Migration: Limited downtime options for large databases
  - Dynamic Migration:
    - Near zero downtime options for continuous operation
    - Extreme Migrations: Customized offering to address esoteric features or extreme business risk

ORACLE database migration – tools to help with the "how to"…

- Development of assessment tools and processes to help select scenarios and build plans. Initial deliverables include:
  - "Oracle® Database Migration – Tru64 UNIX to hp-ux" White Paper
  - Oracle Database Planning Assistant Tool - to estimate migration times & storage
  - Oracle Database Migration Planning Checklist

- Development of portfolio of complementary service and business practices.

Custom Developed Code – Planning and Tools Update

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Goals for custom developed code

- Enable Customers to transition from Tru64 UNIX® to HP-UX with **minimal disruption**
- by reusing to the greatest extent possible **existing solutions**
  - software
  - procedures
  - data
- And personnel/knowledge
  - software developers,
  - users,
  - system administrators

Custom application scenarios

- Platform independent
  - Examples: Java, Oracle PL/SQL, SAP Adabas
  - Magnitude of migration effort is primarily sensitive to application level version changes
- Platform dependent
  - UNIX Standards Compliant

    Code easily ports / just runs

    Emphasis on migration of development environment

    Shells, make dialects …

    Training …
  - Non-Portable / Platform Specific

    Requires deeper analysis of specific platform feature usage

Standards conformance and custom application migration

- Tru64 UNIX and HP-UX are more common than they are different
  - Tru64 UNIX and HP-UX conform to the same major industry standards (Posix, X/Open, UNIX 95, FIPS, LP64)
  - Each is compatible with and/or uses major components from the two main UNIX variants, BSD and UNIX System V.

- Due to these common features, application migration sometimes involves recompile and run.
  - For applications designed and developed with portability as a goal
    - Strict adherence to standards
    - “well behaved” applications: no kernel intrusive functions, documented interfaces only, etc.

Platform-dependent applications

- Provide planning and code analysis tools
  - Migration Assistant:
    - Identify the “it’s different” items that need to be addressed in migration of code
    - Determine resulting migration effort
- Significantly reduce the effort to move applications and their environments from Tru64 UNIX® to HP-UX.
  - Provide Migration Environment on HP-UX
- Enable Tru64 UNIX® applications to evolve into HP-UX native applications.
  - Inclusion of Tru64 UNIX® features into core HP-UX where significant functional differences exist
  - Compatibility aides permit an evolutionary process

Tru64 UNIX to HP-UX application software transition aids

Migration Assistant

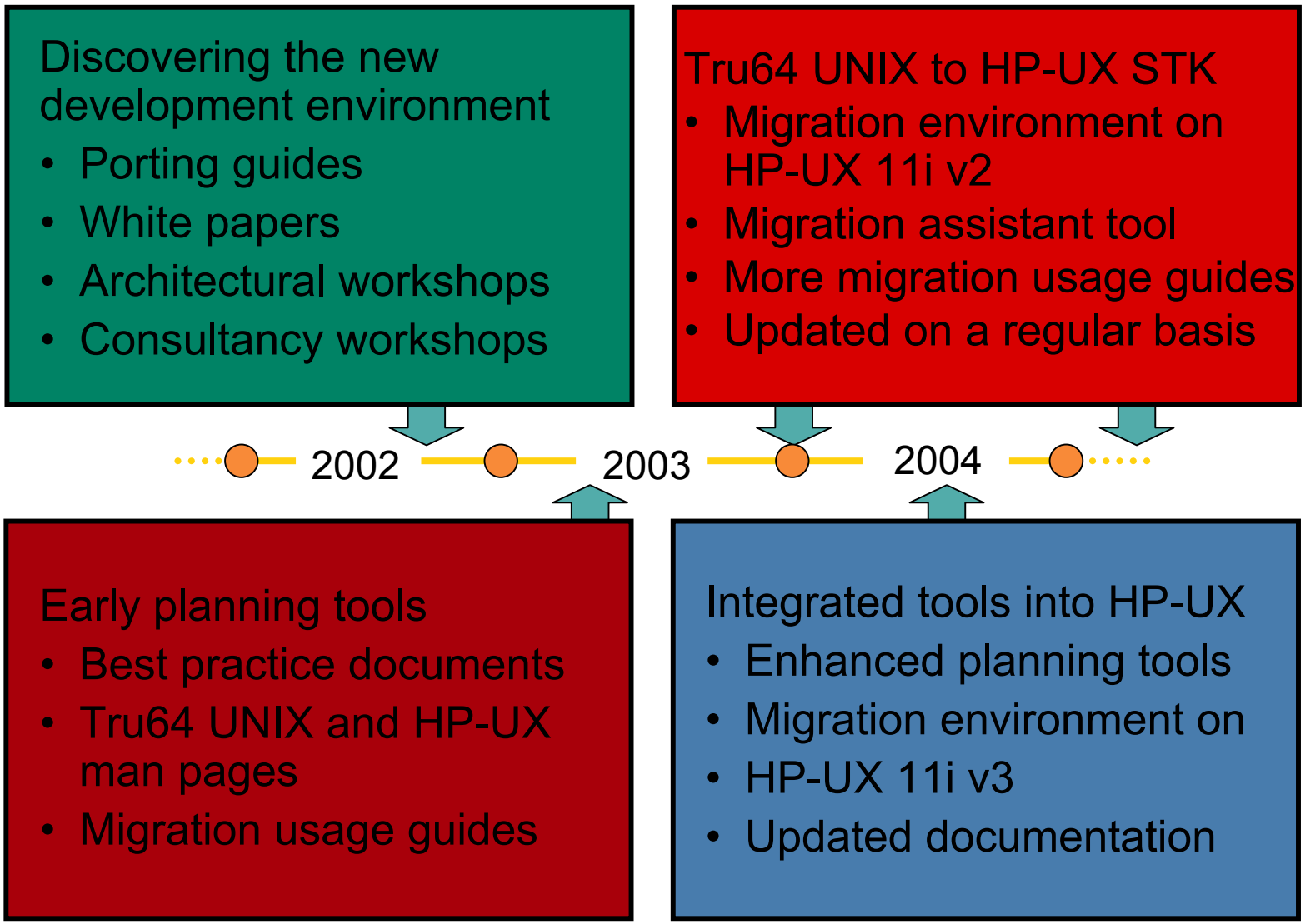
- Based on HP-UX *filescanner* tool included in Software Transition Kit
- Scans source files
  - C, C++, Fortran
  - makefiles
  - shell scripts
- Produces HTML report identifying issues to be resolved and guidance on how to resolve them

Tru64 UNIX to HP-UX application software transition aids

Migration Environment

- Software compatibility layer on HP-UX includes select Tru64 UNIX components:
  - APIs
    - most critical and frequently used libraries
    - libraries that most customers will be dependent on
    - examples: libc, libm, CXML, etc.
  - Development tools
    - compiler compatibility: makefiles, compiler switches, dialect
  - Commands and utilities
    - most critical to users' existing scripts (ie shells)

HP Tru64 UNIX application transition roadmap



Tru64 UNIX to HP-UX application software transition aids

Developers Documentation

- White papers and best practices
  - Documented porting experiences to assist customers with their own porting work (available today at http://h30097.www3.hp.com/transition/apps/port_models.html)
- Usage guides
  - *wdb for Ladebug users*
  - *Caliper for DCPI users*
- Porting guide
  - *Tru64 UNIX to HP-UX 11i on Itanium and PA-RISC* (available today at http://h30097.www3.hp.com/transition/apps/porting_guide.html)
- Man pages
  - Tru64 UNIX man pages on HP-UX
  - HP-UX man pages on Tru64 UNIX
- More information on application transition tools at: http://www.hp.com/go/tru64appmigration/

Resources to Assist Along the Way…

HP WORLD 2003
Solutions and Technology Conference & Expo

Transition planning resources available:

- **Categories of Transition Aids**
  - Training
  - Collateral and Documentation
  - Tools, Methodologies and Technologies
  - Customer Engagement Venues
  - Supplemental Resources
  - Services
- This is a snapshot at this time; more is planned and some areas are still evolving…latest info can be found on Alpha RetainTrust Web Site at:

  http://www.hp.com/go/alpha-retaintrust

Transition planning resources available: Training

- **Technical Webcasts To Date:**
  - Tru64 UNIX® & HP-UX: Side-by Side Comparison for System Administrators
  - Tru64 UNIX®: Side-by-Side Comparison: Clusters & Disaster Tolerance
  - Tru64 UNIX® & HP-UX: Side-by-Side Comparison: Storage Platform Configurations
  - Tru64 UNIX® & HP-UX: Side-by-Side Comparison: Resource and Workload Management
  - Transitioning your Applications from Tru64 UNIX® to hp-ux on Itanium®: Application Transition Tools

  Playback recordings as well as download slide deck are available at:

  www.hpbroadband.com

  Enter email address and keyword tru64unix

Transition planning resources available: collateral and documentation

- Industry White Papers
- Product/Program roadmaps
- Tru64 UNIX® to HP-UX Porting Guide
- Engineering White Papers:
  - “Guide to Migrating from Tru64 UNIX to hp-ux”
  - “Porting OpenVMS Applications to Itanium®”
- See the Alpha RetainTrust web site for the details…

Resources *planned*: tools, methodologies and technologies

- Environmental Inventory Tools
- Database Migration Tools and best practices
- Porting Checklists – available now
- Compatibility Libraries
- Migration Assistant/Code Scanners – available now

Resources available: customer engagement venues

- Customer Engagement Venues:
  - Account consultancy sessions
  - Workshops (customized)
  - HP IT Forums
  - DECUS/ETS/Encompass/Interex Events
  - Technical Days

Supplemental resources & aids available:

- “Testdrive” environment – sandbox environment of new H/W and S/W offerings
- Porting centers
- HP-Intel®; solution centers – proof-of-concept labs for customers
- AlphaServer Customer Assurance Program

Supplemental resources & aids available:

The “TESTDRIVE” Environment

- Come pay a visit – via remote access…
- Check out your software on our new platforms and O/S versions…
- For more information, check out the Testdrive website at:

www.testdrive.hp.com

Supplemental resources & aids available:

HP- Intel® Solution Centers:

- Proof-of-concept labs available to customers interested in Itanium®-based systems
- Available for 2-3 week slots with HP and Intel consultants available to assist you.
- Locations at:

  Grenoble, France

  Cupertino, California

  Shanghai, China

For more info, check out the website at:

www.hpintelco.com

Transition planning resources available: hp services

HP WORLD 2003
Solutions and Technology Conference & Expo

HP Services

perfect delivery with people, technology, and processes

better people better solutions!

- highly competent teams of: project managers, solution architects, technical consultants, software developers, test engineers
- quick ramp-up to handle big projects

technology for that competitive advantage

- languages (VC++, VB, C/C++, java COBOL)
- database
- OS (UNIX, Windows, Linux, and MPE)
- CORBA, COM, RMI-component
- EAI, messaging, MQ series, elink,

process well defined, consistent and repeatable

- aligned with focus pm
- SEI CMM level 5 assessment
- on-site and off-site execution
- fixed or time & materials pricing model

Web resources - available now

- Transitioning your Tru64 UNIX applications to hp-ux web site:
  - http://www.hp.com/go/tru64appmigration/
- New Alpha RetainTrust site
  - http://www.hp.com/go/alpha-retaintrust
- Porting Guide
  - *Tru64 UNIX to HP-UX 11i on Itanium and PA-RISC* (available today at) http://h30097.www3.hp.com/transition/apps/porting_guide.html
- Tru64 UNIX Transition Training Website
  - http://education.hp.com/curr-hptru64-unix.htm

White papers - available now

- "Migration choices for AlphaServer/Tru64 users"
  - 14 page paper (Technology Update) that assists customers in determining where and when to migrate to, done by D. H. Brown, August 2002
- "Platforms for the New Millennium: Making the transition from Alpha to Itanium-architecture based servers", IDC, January 2003
- "From Tru64 UNIX® on Alpha to HP-UX on the Itanium® Architecture – A Safe Journey to Evolution"
  - 20 page internally-developed white paper to articulate our strategy
- All available off of the Alpha RetainTrust website at:

  http://www.hp.com/go/alpha-retaintrust

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