

Tru64 UNIX transition strategies for PeopleSoft application environments



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Introduction

HP and PeopleSoft® are dedicated to a long-term support strategy that will be as comprehensive as possible. However, due to changing market conditions and product support roadmaps, it might become uneconomical to continue support for certain environments indefinitely. Such is the case with the Tru64 UNIX® offering from HP.

Currently, HP will continue support for the Tru64 UNIX operating system through 2011. As more robust market-leading solutions become available, however, it will become increasingly compelling for you to consider higher performing, lower cost options, such as HP-UX on the Intel® Itanium® processor family system architecture. HP is also hard at work to make sure that all of the important features that have made Tru64 UNIX a strong, viable operating system will be brought into future versions of HP-UX. Thus, you will have a clear transition path with HP without losing any of the benefits you have enjoyed with Tru64 UNIX.

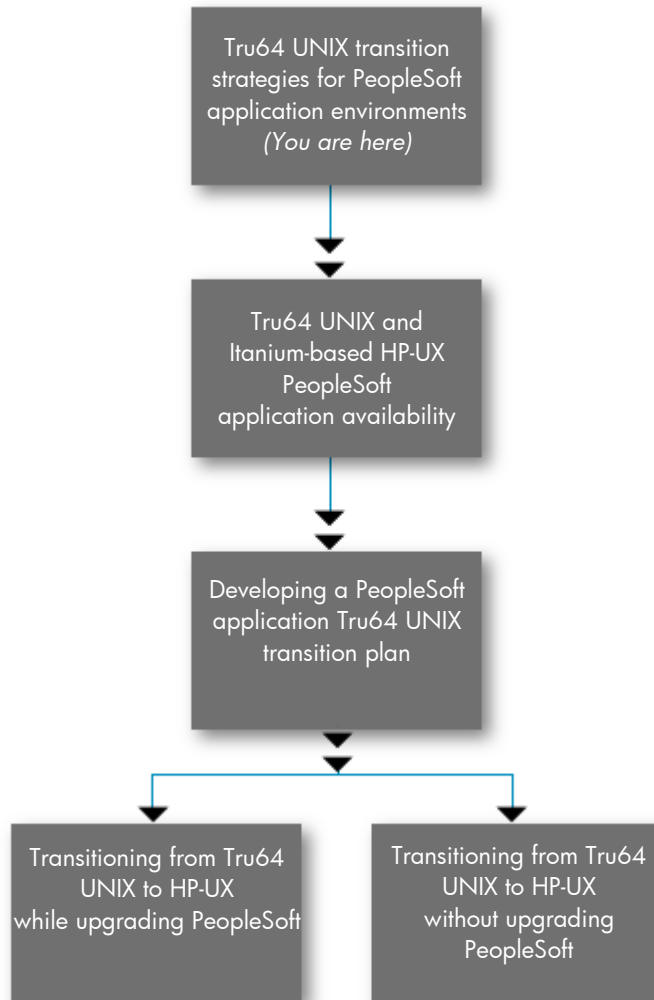
PeopleSoft must also take measures that will keep support costs in line with the rest of the industry, for the ultimate benefit of all customers. For this reason, PeopleSoft and HP have developed a support evolution strategy which you can use to customize the best transition path for your needs.

Depending on your business needs and expected upgrade paths, HP can help you choose a transition strategy that is right for you. In addition to a series of published documents that can assist you in planning and implementing your Tru64 UNIX transition strategy, HP has developed consulting services to help make the transition smooth. Furthermore, as PeopleSoft supports mixed operating system environments, you might consider moving all of your Tru64 UNIX servers to HP-UX coinciding with a major upgrade, or you might elect to gradually transition your Tru64 UNIX systems by implementing your PeopleSoft applications in a mixed environment. As you read through the existing documentation, certain benefits of one strategy versus another will become evident. And as always, you can contact HP to discuss the best options for your individual requirements.

Transition strategy documents

This document is one in a series of documents that can assist you in planning and implementing a Tru64 UNIX PeopleSoft application transition. This series of documents can help you decide when you should move from Tru64 UNIX to HP-UX. After the planning phase is complete and you have developed a transition strategy, further documentation will help outline common implementation practices to help you streamline your transition. The different transition strategy documents are shown in the following figure.

Figure 1. Transition strategy documents



Planning documents

Tru64 UNIX and Itanium-based HP-UX PeopleSoft application availability

This document discusses Tru64 UNIX and Itanium-based HP-UX PeopleSoft application availability. The roadmaps for Tru64 UNIX and HP-UX are discussed, along with what is planned to be supported in PeopleSoft 8 on Tru64 UNIX and Itanium-based HP-UX. In addition, transition recommendations are discussed for Tru64 UNIX customers using PeopleTools 7.1x and below, PeopleTools 7.5x, PeopleTools 8.1x, and PeopleTools 8.4x.

Developing a PeopleSoft application Tru64 UNIX transition plan

Moving to Itanium-based HP-UX from Tru64 UNIX, with or without performing PeopleSoft upgrades, involves a planning stage. This document provides planning worksheets you can use to conceptualize several of the transition strategies that are available. It also provides important concepts that you should be aware of while creating your *transition plan* and provides information to help you understand the transition process as a whole.

Implementation documents

Transitioning from Tru64 UNIX to HP-UX while upgrading PeopleSoft

Integrating the Itanium-based HP-UX transition process into a PeopleSoft upgrade might or might not take a large amount of effort, depending on whether the upgrade is associated with updates and fixes, bundles, service packs, and minor or major release upgrades. This document shows the steps associated with moving each type of PeopleSoft server to the Itanium-based HP-UX platform during a PeopleSoft upgrade. It also steps you through the process of creating test environments and discusses why both Tru64 UNIX and Itanium-based HP-UX interim environments are needed for testing. Finally, it discusses the process of moving the final test environment into production.

Transitioning from Tru64 UNIX to HP-UX without upgrading PeopleSoft

Transitioning to Itanium-based HP-UX without a PeopleSoft upgrade can involve moving the PeopleSoft web server, application server, batch server, and database server to Itanium-based HP-UX. This document shows the steps necessary to move each PeopleSoft server tier to Itanium-based HP-UX, and provides instructions on creating a test environment and moving it to production. It also discusses the steps that are needed to update a Tru64 UNIX database (using Oracle® as an example) to Itanium-based HP-UX.

Transition benchmarks

As a proof of concept, HP and PeopleSoft are in the process of producing several application performance reports that highlight PeopleSoft product scalability in HP-UX/Tru64 UNIX mixed environments. In addition to reviewing the applicability of these mixed environments, you can compare these benchmarks to pure HP-UX environments to see the relative scalability and migration strategies in a real environment. You can request the benchmarks from your HP or PeopleSoft representative or find them on the PeopleSoft Customer Connection website:

<http://www.peoplesoft.com>

The following table lists the projects which are currently available.

Table 1. Benchmark projects

Project	Description
ELM 8.8 Benchmark	Online benchmark uses a Tru64 UNIX PeopleSoft database server and HP-UX on PA-RISC as web and application servers
Time and Labor	Online benchmark uses a Tru64 UNIX PeopleSoft database server and HP-UX on PA-RISC as web and application servers
Time and Labor	Online benchmark uses an Itanium-based HP-UX PeopleSoft database server with Tru64 UNIX application and web servers
Time and Labor	Online benchmark uses an Itanium-based HP-UX PeopleSoft database server with HP-UX on PA-RISC application and web servers.
Global Consolidations	Data warehousing application will highlight the Itanium-based HP-UX environment with analytical engines running on PA-RISC HP-UX

Future projects are in the planning stages; you can make requests through your HP/PeopleSoft Alliance team.

There were three different performance reports published for the Time and Labor online benchmarks mentioned above. Each report uses a different configuration of PeopleSoft Alpha/PA-RISC/Itanium web, application, and database servers. A performance comparison between these different configurations is presented in [Appendix A](#).

Conclusion

HP values our Tru64 UNIX customers and is committed to helping our joint PeopleSoft customers enjoy a smooth transition to HP-UX. In addition to the documents highlighted in this overview, you can also find general Tru64 UNIX to HP-UX transition information (including links to transition tools and documents) at:

<http://h30097.www3.hp.com/>

HP recommends that you become familiar with the Tru64 UNIX PeopleSoft application transition by reviewing these documents and transition when you feel it is time to do so. As always, you are encouraged to work with your local HP team to help with any concerns you might have as you develop your transition strategy. In addition, feel free to contact the PeopleSoft Alliance team in your region at one of the addresses in the following table.

Table 2. PeopleSoft Alliance team email addresses

Region	Email address
North America	northamerica_peoplesoft@hp.com
Latin America (Spanish)	latinamer-span_peoplesoft@hp.com
Latin America (Portuguese)	latinamer-port_peoplesoft@hp.com
Europe, Middle East and Africa	emea_peoplesoft@hp.com
Australia/New Zealand	australia-nz_peoplesoft@hp.com
Japan	japan_peoplesoft@hp.com
Asia	asiapac_peoplesoft@hp.com

Be sure to specify that you are requesting assistance with a PeopleSoft implementation and an engineer will be assigned to you. For more information, refer to the HP Global Alliance website at:

<http://www.peoplesoft-hp.com>

Appendix A

The three Time and Labor 8.8 certified performance reports used PeopleSoft Time & Labor 8.8 Self-Service and Oracle 9.2.0.2 in three different mixed HP UNIX environments.

For each mixed UNIX environment, HP measured the CPU utilization for each PeopleSoft Server and the response time for ten different time and labor transactions while simulating 1000 concurrent users. The response times are grouped across five different metrics.

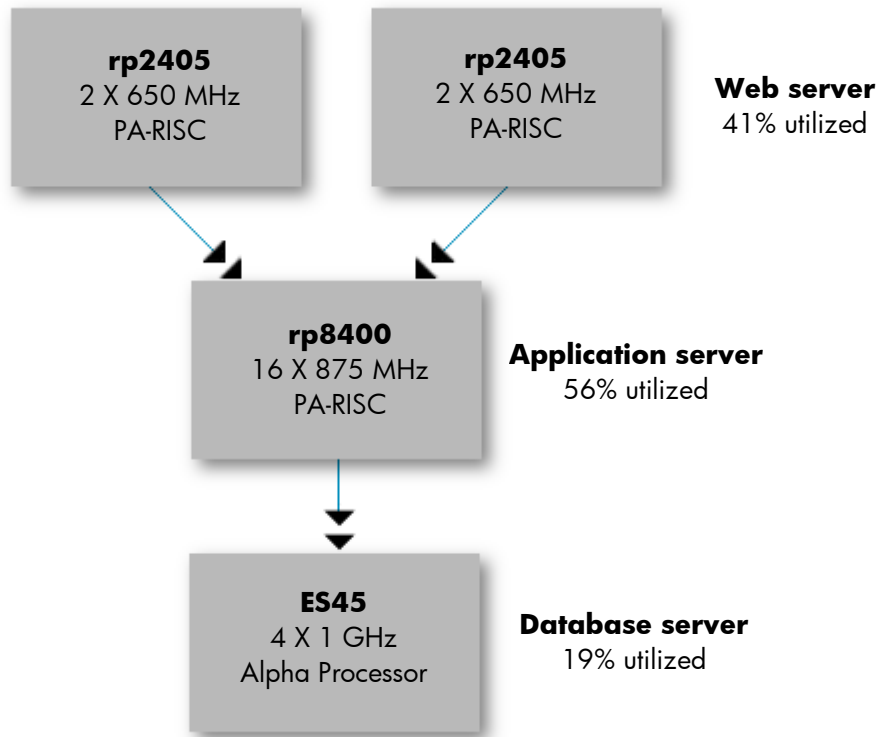
Table 3. Description of metrics type

Metrics type	Description
R1	Retrieval of transaction page from search page
R2	Retrieval of detail page from transaction page
R3	Retrieval of search page from navigation link
R4	Retrieval of transaction page from navigation link
R5	Refresh page with new data

The mixed HP UNIX environment configurations for each performance report are shown in the following figures. Database layouts and Oracle initialization parameters are constant for each configuration.

PA-RISC/Alpha

Figure 2. Mixed HP PA-RISC/Alpha environment



The first configuration used an AlphaServer ES45 as the database server, PA-RISC rp8400 as the application server, and two PA-RISC rp2405 as web servers. The response time with 1000 concurrent users for the five metric types are listed in the following table.

Table 4a. Response time using a mixed HP PA-RISC/Alpha environment

Configurations	R1	R2	R3	R4	R5
PA-RISC/Alpha	2.039	0.542	1.354	2.218	1.791

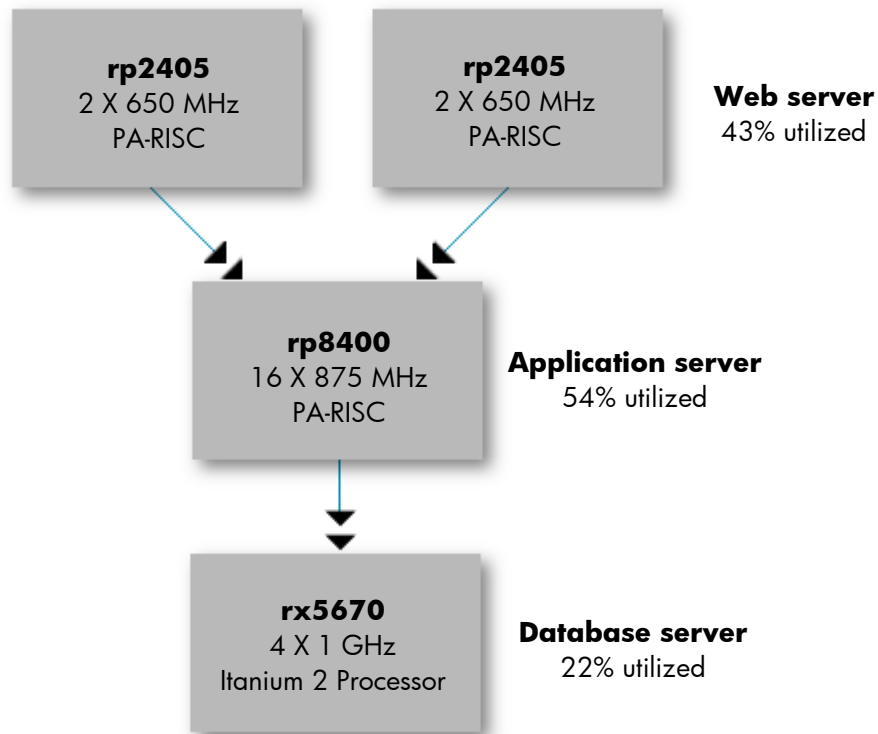
The average CPU utilization for each PeopleSoft Server type is listed in the following table.

Table 4b. CPU utilization using a mixed HP PA-RISC/Alpha environment

	Database server	Application server	Web server
CPU utilization	19%	56%	41%

PA-RISC/Itanium

Figure 3. Mixed HP PA-RISC/Itanium environment



For the second configuration, the AlphaServer ES45 was replaced with an Itanium 2 database server. Both of these systems were configured with four 1GHz processors. A comparison of response times with 1000 concurrent users for the five metric types is shown in the following table.

Table 5a. Response time using a mixed HP PA-RISC/Alpha and PA-RISC/Itanium environment

Configurations	R1	R2	R3	R4	R5
PA-RISC/Alpha	2.039	0.542	1.354	2.218	1.791
PA-RISC/Itanium	1.361	0.530	0.853	1.313	1.728

The average CPU utilization for each PeopleSoft Server type is listed in the following table.

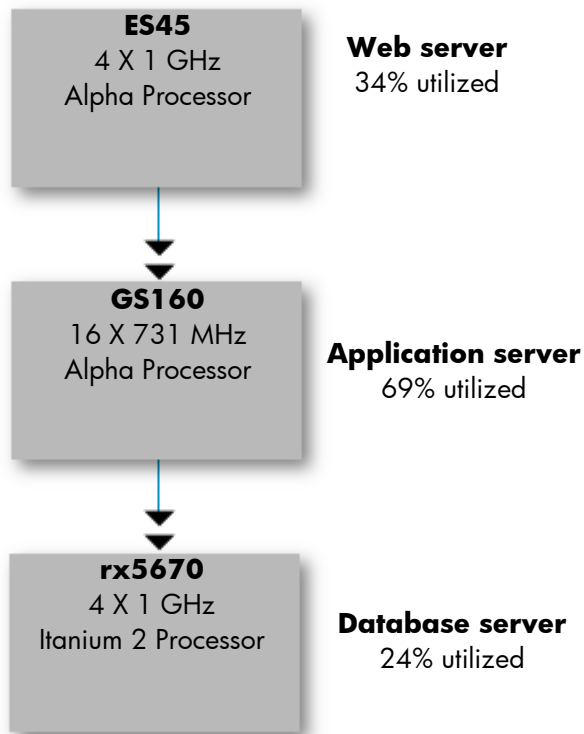
Table 5b. CPU utilization using a mixed HP PA-RISC/Alpha and PA-RISC/Itanium environment

Configurations	Database server	Application server	Web server
PA-RISC/ALPHA	19%	56%	41%
PA-RISC/Itanium	22%	54%	43%

When the database server was replaced with Itanium, there was a decrease in response time for all metric types with a slight increase in database CPU utilization.

Alpha/Itanium

Figure 4. Mixed HP Alpha/Itanium UNIX environment



For the third configuration, the PA-RISC Web and Application Servers were replaced with Alpha Web and Application servers while using the same Itanium 2 database server. A comparison of response times with 1000 concurrent users for the five metric types is shown in the following table.

Table 6a. Response time using a mixed HP PA-RISC/Itanium and Alpha/Itanium environment

Configurations	R1	R2	R3	R4	R5
PA-RISC/Itanium	1.361	0.530	0.853	1.313	1.728
Alpha/Itanium	1.482	0.590	1.010	1.610	2.079

The average CPU utilization for each PeopleSoft Server type is listed in the following table.

Table 6b. CPU utilization using a mixed HP PA-RISC/Itanium and Alpha/Itanium environment

Configurations	Database server	Application server	Web server
PA-RISC/Itanium	22%	54%	43%
Alpha/Itanium	24%	69%	34%

Observations:

- There was an increase in application server CPU utilization over the PA-RISC servers that was probably due to the slower processor speed of the 731MHz Alpha compared to 875 MHz PA-RISC.
- The decrease in the AlphaServer web server CPU utilization over the PA-RISC servers was probably due to the faster processor speed of the 1GHz Alpha compared to 650 MHz PA-RISC.
- There was a slight increase in response time.

Summary

Mixed HP UNIX environments give similar performance, with a decrease in overall response time when replacing a comparable Alpha database server with Itanium.

References

Detailed information about these benchmarks can be found in the following PeopleSoft performance reports:

- PeopleSoft Time & Labor 8.8 Self-Service using Oracle9i on a mixed HP PA-RISC/ALPHA UNIX Environment
- PeopleSoft Time & Labor 8.8 Self-Service using Oracle9i on a mixed HP PA-RISC/Itanium UNIX Environment
- PeopleSoft Time & Labor 8.8 Self-Service using Oracle9i on a mixed HP Alpha/Itanium UNIX Environment

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