



HP-UX 11i compatibility for HPE Integrity and HP 9000 servers

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Introduction

Hewlett Packard Enterprise understands your need for investment protection. By providing multiple levels of compatibility between operating system releases, between hardware platforms, on virtual machines, and even between chip architectures, we believe the HP-UX operating system provides the most comprehensive investment protection in the industry (see [Appendix](#) for a definition of levels of compatibility).

Compatibility across operating system releases and hardware platforms

For well-behaved user space applications, (see [Appendix](#) for the definition of **well-behaved** and other terms) HPE:

- Maintains forward data, source, build environment, and binary compatibility across all hardware platforms of the same architecture family (for example, Intel® Itanium® or PA-RISC), which are supported by the same version of HP-UX.
- Provides forward data, source, build environment, and binary compatibility across HP-UX release versions and updates on HP 9000 servers and HPE Integrity servers on their respective architectures. This is true for 32-bit or 64-bit applications on either architecture family.
- Delivers new features and improved performance with each new HP-UX release. Binary compatibility across operating system releases applies to legacy features (features that were present in the earlier release). There are some instances, however, where applications may be required to recompile in order to use or leverage a new feature. See the [HP-UX release notes](#) for information on new features that may require changes to applications.

Compatibility within HP-UX 11i Virtualization solutions

Well-behaved applications built on HP-UX 11i are binary compatible to run within HPE Virtual Partitions (vPars) on the same architecture family. No changes, recompilation, or recertification is necessary.

Well-behaved applications built on HP-UX 11i Integrity are binary compatible to run within an HPE Integrity Virtual Machine. This binary compatibility applies to applications with no specific device dependencies (most applications) and to applications that depend only on devices currently virtualized by HPE Integrity VM.

Compatibility between architecture families

In addition to the compatibility provided within an architecture family, HP-UX 11i on HP 9000 servers is data, source, and build environment compatible with HP-UX 11i on HPE Integrity servers. Build environments and source files can be moved from HP 9000 servers to HPE Integrity servers and can be rebuilt without modification.

Application binaries built on HP-UX on HP 9000 servers are binary compatible, with some limitations, with HP-UX on HPE Integrity servers when running through the ARIES dynamic code translator. The use of ARIES can be completely transparent.

Support

HPE is committed to provide investment protection via compatibility as outlined previously. Any owner of application code that meets the criteria for compatibility, who has encountered a compatibility failure as defined by this document, should contact HPE by sending an email to [PRTechPartner](#) (Technology Partner Ready Program) and [HA_Marketing](#) and identifying the problem as an **HP-UX compatibility failure**.

Appendix: Definition of terms and levels of compatibility

There are multiple types of compatibility that need to be defined.

1. An HP-UX **release** is operating system software that can be installed on a hardware platform.
2. A **version** release installs a new version of HP-UX on a hardware platform. The new version contains a substantial set of new features. Examples of version releases are **HP-UX 11.0**, **HP-UX 11i v1**, **HP-UX 11i v2**, and **HP-UX 11i v3**.
3. An **update** release updates an existing HP-UX version release with defect repairs, hardware enablement changes, and limited new features. The version number of the operating system does not change when an update release is applied. Example of update releases are **HP-UX 11i v2 December 2007 Operating Environment Update Release (OEUR)** and **HP-UX 11i v3 Update 2**.
4. Forward compatibility means that there is compatibility between a version and a later version. It does not mean or include compatibility going from the later version to the previous version. All references to compatibility in this document are for forward compatibility only.



Technical white paper

5. Build environment compatibility means that application build environments (makefiles, script files, and the like) can be moved and used unchanged from the original system to the target system.
6. Source compatibility refers to the ability to compile the same application code source file on an original system and a compatible system with different versions of the HPE compiler.
7. Binary compatibility refers to the ability to compile an application on a specific solution (architecture, hardware platform, operating system version) to produce a binary file. That binary file, without modification, can be run on the solution where it was created and it can be on a target solution, which is binary compatible.
8. Data compatibility means that the data format on the different targets is the same.
9. **Well-behaved** user space applications: HP-UX provides compatibility for applications that are user space (as opposed to kernel intrusive) applications that are **well behaved**. A **well-behaved** user space application is an application that adheres to the following characteristics:
 - a. Uses only documented public application programming interfaces (APIs) (Documented interfaces are those found in the system manual [man] pages or at [HPE Support Center \[HPESC\]](#))
 - b. Is not a kernel-intrusive application
 - c. Adheres to standard development practices (For example, a shared library cannot be dependent on an archive library, and the like.)
 - d. Does not use features that are specifically documented as having platform architecture or configuration limitations
 - e. Has no software dependencies on specific types of hardware (for example, specific mass storage devices, specific I/O, or networking adapters)
 - f. Does not decompose an HP-UX product and then reuses the results of the decomposition (for example, extracting and using a module from a system library or copying a system library or command from one release to another, and the like)

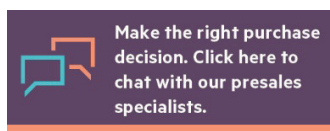
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