



<https://access.redhat.com/articles/rhel9-abi-compatibility>

- **ABI conformance**

A compiler conforms to an ABI if it generates code that follows all of the specifications enumerated by that ABI. A library conforms to an ABI if it is implemented according to that ABI. An application conforms to an ABI if it is built using tools that conform to that ABI and does not contain source code that changes behavior specified by the ABI or that otherwise bypasses the ABI.

- **Binary compatibility**

Binary compatibility means application binaries that are compiled for a specific ABI, generally for a combination of RHEL and a particular hardware architecture, will load and run similarly across different versions of RHEL. Application binaries consist of executable files, Dynamic Shared Objects (DSO), source, bytecode for interpreted just-in-time compiled languages, and their required data files.

- **Core persistent system infrastructure**

The core persistent system infrastructure refers to interfaces and externally available data structures that represent system state or provide a means of communicating with the system (for instance, system calls and header files).

- **Compatibility in a virtualized environment**

Virtual environments emulate bare-metal environments such that unprivileged



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Compatibility levels

All components and packages in Red Hat Enterprise Linux are classified under one of the following four compatibility levels:

- **Compatibility level 1**

- APIs and ABIs are stable within the lifetime of a major release and ABIs are also stable across the next two major releases; the release that introduces a new or revised ABI, and the two following major releases (n , $n+1$, $n+2$). In the case of this document, release n starts with Red Hat Enterprise Linux 9. If a change to a library causes an incompatibility with existing binaries, a separate version of the library will be provided with the older ABI to run the application without modification.

- **Compatibility level 2**

- APIs and ABIs are stable within the lifetime of a single major release. Compatibility level 2 application interfaces will not change from minor release to minor release and can be relied upon by the application to be stable for the duration of the major release. Compatibility level 2 is the default for packages in Red Hat Enterprise Linux 9. Packages not identified as having another compatibility level may be considered compatibility level 2.