Which version of Red Hat Enterprise Linux is best for me?

It is time to upgrade your Red Hat® Enterprise Linux® operating system. Are you wondering which version is right for you? Your subscription allows you the freedom to choose whichever available version best suits your needs. With its new predictable release cadence and more supported versions available, knowing the key differences between Red Hat Enterprise Linux 8 and Red Hat Enterprise Linux 9 will help you decide which version is best for you. While the next closest version may seem like the obvious choice, an even later version might actually make more sense for you.

1   Maximizing your life cycle

The decision to upgrade a system, instead of migrating to a new host, typically stems from needing to manage the availability and life cycle of an existing application, whether it be to upgrade underlying components for better performance or to extend support of a critical workload. Either way, moving to an operating system (OS) currently in the Full Support phase from the Maintenance or even Extended Life phase means more updates will be available for a longer period of time.

For example, with Red Hat Enterprise Linux 7 Server currently in Maintenance phase 2, Red Hat Enterprise Linux 8 remains in Full Support until May 2024, with Red Hat Enterprise Linux 9 in Full Support until May of 2027. The Red Hat Enterprise Linux Life Cycle page lays out an easy-to-use map and a table for simple comparisons.

Full Support means that new features, new streams, and new hardware are being added in addition to fixes and updates. Moving to Red Hat Enterprise Linux 9 means having a longer period of active OS development, with an overall longer supported life cycle.

At the time of a new major release of Red Hat Enterprise Linux, the technology gap between the new version and the previous version is fairly small, but as time goes on backporting features into the previous version becomes more difficult. This leads to more divergence over time, even during the Full Support phase.

Having the latest combination of your applications and hardware on the latest version of the OS maximizes the available support life cycle.

2   Application supportability

Making the choice to upgrade often involves commercial applications from enterprise independent software vendors (ISVs). Upgrading the operating system while maintaining the same version of applications is often done to promote stability and supportability of those enterprise applications. Understanding which versions of Red Hat Enterprise Linux are supported by those ISVs can guide your choices.

Red Hat's extensive partner network validates and certifies their software components against various versions of Red Hat Enterprise Linux. As partners, we are also working to provide updated packages and libraries that match what we are each looking for long term. This means that ISV certifications are often tied to specific major versions of Red Hat Enterprise Linux.

If an ISV partner is looking for newer software components to build against, or newer hardware features to take advantage of, Red Hat Enterprise Linux 9 may be the right choice.

Considering the change over time between versions under full support, your current commercial application may still be under testing or even development at the general availability of a new release of Red Hat Enterprise Linux.

3 Long-term stability

For applications developed in-house, replatforming selected components could mean big investments with little-to-no appreciable benefits. Existing applications built around specific versions of common development tools and components could be disrupted during an upgrade, or even during a migration.

The availability of application streams in Red Hat Enterprise Linux 8 and 9 provide multiple versions of common components, meaning it is easier to provide a stable environment for existing applications while still taking advantage of newer operating environments and management tooling.

Red Hat Enterprise Linux 8 provides older versions of components as well as new components released during the life cycle, which can provide a way to transition smoothly between component versions.

4 Seeking innovation

Teams are often looking to update or rearchitect existing applications to take advantage of the latest technology choices. Upgrading operating systems also means access to newer sets of operational and development tools and components. Access to the latest technologies and tools allows teams to deliver new projects faster and address refactoring and new patterns easier.

With multiple versions of components containing application streams and later versions of supported operating systems, current environments can take big leaps forward while still maintaining some compatibility.

Red Hat Enterprise Linux 9 will continue to support newer technologies as new versions are released providing users with greater choice.

5 Extending hardware retirement

Sometimes the goals for upgrades are above the operating system but rely on existing infrastructure. Getting the most out of datacenter investments while updating software capabilities can make sense in many cases.

Much like our ISV ecosystem, our network of hardware partners means we have a wide range of supported devices. Between major releases and in conjunction with those partners, certain devices may no longer be supported. Choosing the right version of Red Hat Enterprise Linux can provide an updated platform for software while still maintaining support for previous generations of hardware.

Major releases are typically a deprecation boundary for older hardware. Older hardware that is no longer supported by the manufacturer may not be available in Red Hat Enterprise Linux 9.

6 Kernel functionality

The choice to upgrade instead of rebuild sometimes comes down to the core features delivered within Red Hat Enterprise Linux. Access to the latest updates to, and capabilities of, packages may require the move to a later version of the OS. While features and security fixes are often backported, major versions often present newer baselines for packages that include changes that cannot be provided by a backport.

For example, the Red Hat Enterprise Linux 7 kernel is based on the upstream 3.10 version, while Red Hat Enterprise Linux 8 is based on the upstream 4.18, and Red Hat Enterprise Linux 9 on upstream 5.14. Feature and security updates from later versions may be backported into the earlier version, but large structural changes would wait until a new major version of Red Hat Enterprise Linux.

Backporting only goes so far—eventually you need new capabilities that cannot be handled using streams.

f facebook.com/redhatinc
🐦 @RedHat
in linkedin.com/company/red-hat

North America
1 888 REDHAT1
www.redhat.com

Europe, Middle East, and Africa
00800 7334 2835
europe@redhat.com

Asia Pacific
+65 6490 4200
apac@redhat.com

Latin America
+54 11 4329 7300
info-latam@redhat.com

redhat.com
#F32043_0922