

# KSPLICE: ZERO DOWNTIME UPDATES FOR ORACLE LINUX



## KEY BUSINESS BENEFITS

- Lower your operational costs by reducing the amount of supervision time required for reboots.
- Improve application availability and uptime.
- Realize greater security with the ability to promptly install OS upgrades.
- Experience true enterprise support for Linux.

## KEY FEATURES

- **Rollback capability.** Any update that can be applied using Ksplice can also be reversed without rebooting
- **No performance impact.** Ksplice does not negatively affect performance. No virtualization, daemon, or system agent is required.
- **Web interface and API.** View and manage the status of Ksplice on all your systems, from one place – either via a Web interface, or programmatically via a REST API.
- **Virtualization-ready.** Ksplice works perfectly well in virtualized environments.
- **User-Space Patching.** Ksplice supports updates to many critical user-space libraries such as glibc and openssl without rebooting.
- **Offline Updates.** Ksplice can update systems not connected to the internet

Ksplice, available as part of Oracle Linux Premier Support subscription, updates the Linux operating system (OS) kernel and key user space libraries, while the OS is running, without a reboot or any interruption. Only Oracle Linux offers this unique capability, making it possible for you to keep up with important Linux updates without burdening your team with the operational cost and disruption of rebooting for every update to Linux.

## The Cost of Rebooting

Linux kernel security updates with important new security and reliability patches are released about once per month. Industry regulations and best practices require companies to apply these security updates and patches regularly because security is compromised by a failure to update. System administrators are forced to choose between known best practices and system reboots that are costly and disruptive. Because Ksplice is fully integrated with Oracle Linux, Oracle Linux Premier Support customers can apply updates without rebooting – increasing the security, reliability, and availability of Oracle Linux.

## Why Use Ksplice?

Ksplice allows system administrators to deliver valuable patches with lower costs, less downtime, increased security, and greater flexibility and control.

- **Reduce operational costs.** Reboots require costly supervision. They need to be planned in advance and complications can arise during a reboot: services might not start properly, or the interruption might lead to complications with a separate system. Ksplice saves you this hassle and lets you focus elsewhere. You can eliminate long nights and weekends spent rebooting servers for kernel updates. In addition, you do not need to coordinate with system users about outages caused by reboots.
- **Improve availability.** With Ksplice, updates are installed in seconds, without interrupting running applications or the people using those applications. You can quickly check on the current status of your systems before rolling out updates to your network. Installing updates requires no downtime, so your systems are more available than ever. Critical updates and security patches are applied without rebooting. And if you want to roll back an update for any reason, you can do so easily, without a reboot.
- **Improve security.** Postponing the installation of updates until a convenient time is a tempting practice but is also extremely dangerous. Systems that are not up to date are vulnerable to well-known security problems. Ksplice makes it easy to keep your systems up to date and secure, so you can reduce your window of vulnerability by introducing updates in a timely manner. With Ksplice, you dramatically increase compliance with OS updates.
- **Experience true enterprise support for Linux.** Oracle Linux Premier Support customers get the benefit of using Ksplice for zero downtime diagnostic and security

with an internal update mirror.

- **Proxy Support.** Ksplice supports standard HTTP proxy to pass through your firewall.
- **Access policies.** Ksplice offers access policies for individual systems or groups.
- **Email Notifications.** Administrators can choose to be notified when new Ksplice updates are available for their systems.

patches along with “Premier Backports” --- fixes for the OS version you run, with no forced upgrades. For customers running an Oracle solution, there's one point of support for the entire stack.

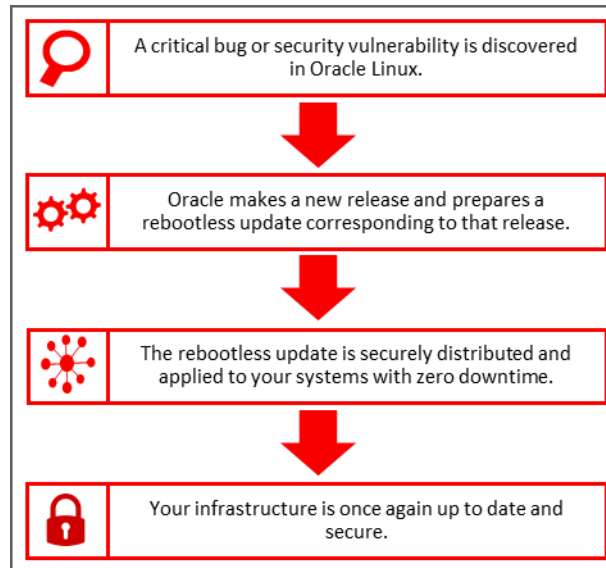


Figure 1. Linux kernel updates don't require system reboots with Ksplice

## How Does Ksplice Work?

Available to Oracle Linux Premier Support customers, Oracle's Ksplice Uptrack service requires an access key. Users can obtain an access key by subscribing to Oracle Linux Premier Support, which gives them access to Unbreakable Linux Network (ULN). They can then request a Ksplice access key through ULN.

After installing Ksplice, you can easily apply all important Linux kernel updates without needing to reboot. No configuration changes or initial reboot is needed to install. Under the hood, Ksplice loads a Linux kernel module that rewrites portions of the running kernel to apply the updates.

## An Established Track Record

With over 250,000 systems protected, over 10,000,000 updates applied, over 4,000,000 reboots saved, Ksplice is rapidly becoming the de facto standard for keeping your Linux systems up to date.



## CONTACT US

For more information about Ksplice, visit [oracle.com/linux](http://oracle.com/linux) or call +1.800.ORACLE1 to speak to an Oracle representative.

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