



Automated Kernel **SECURITY UPDATES** Without Reboots

Safe Kernel. Safer Linux.



Rebootless Kernel Security Updates

KernelCare keeps kernels secure and ends reboots forever with a single command. It ensures you never miss security patches, and your kernels are always up to date.

For Admins, it provides huge convenience, security, and time savings. For business users, it eliminates downtime to their business-critical applications.

175K+ servers running



KernelCare Protects Servers

1

Eliminate
downtime

Installs patches to live (or staging) servers without performance impact or downtime

2

Never miss a
critical patch

Super-fast, latest security patch release – the agent checks for new patches every 4 hours

3

Single-line rebootless
installation

A few minutes to install, nanoseconds to update, with roll-back capability, all without reboots



“The downtime that reboots cause is a disruption for customers, and nuisance for admins, that can be easily avoided with KernelCare. We’re moving closer to a time in which this type of “disruption is no longer excusable.”

JOE OESTERLING, Chief Technology Officer at Liquid Web

KernelCare Streamlines Costs

1

Avoid security issues

No more vulnerabilities as kernels are always up to date on all security updates.

2

Lower operating cost for server management

Automated patching frees up your IT team. No more middle-of-the-night & weekend maintenance windows.

We monitor security lists so your Admins don't have to.

3

No more application downtime for business users

Avoid application downtime due to kernel updates, eliminate the need to coordinate between various locations, users and Admins.

Cost Considerations

Traditional kernel updates

OPERATIONAL COSTS:

Kernel Updates: *Due to maintenance windows and admin costs, timely updates and server reboots are difficult. Factors to consider:*

1. Number of servers that need to be updated;
2. % of servers that will have restart issues during a reboot;
3. Damage control from issues arising within the timeframe of discovered vulnerability and a fix;
4. Being non-compliant due to running unpatched software prior to next maintenance window;
5. Number of Admins needed to perform updates;
6. Days/hours spent by Admins performing repetitive maintenance, planning and updates, as opposed to more strategic IT initiatives.

BUSINESS COSTS:

Business Interruption: *Various business units are affected by the downtime during the update. Factors to consider:*

1. Business and opportunity cost of application downtime;
2. Stakeholders involved in downtime planning;
3. Risk factors related to security issues if they arise.

Using KernelCare

Admin costs related to:

One-time:

...KernelCare rebootless installation on each server.

In rare cases... testing of patches on the staging environment.

KernelCare is Affordable

\$2.25

per server per month for accounts with 500+ licenses

No interruption to running applications, no vulnerable kernels, and no Admin hassle

How KernelCare Works

- 1 Our security experts with deep knowledge of kernel development monitor all Linux security lists 24x7x365;
- 2 Once they notice a vulnerability that affects our supported kernels, they promptly prepares a security patch;
- 3 Patch is compiled in a binary format and is deployed to KernelCare distribution servers;
- 4 KernelCare agent checks for new patches every 4 hours and if any, it downloads it and updates kernels without the reboot.

**ENTERPRISE-
READY:**

*Full support for
servers behind the
firewall*

Our team combines **450+** man-years of in-depth technical knowledge of **Linux and kernel development.**

Built for the Enterprise

Supports automatic updates or managed updates in a live environment or in your desired staging environment. Works on typical servers as well as virtual environments.

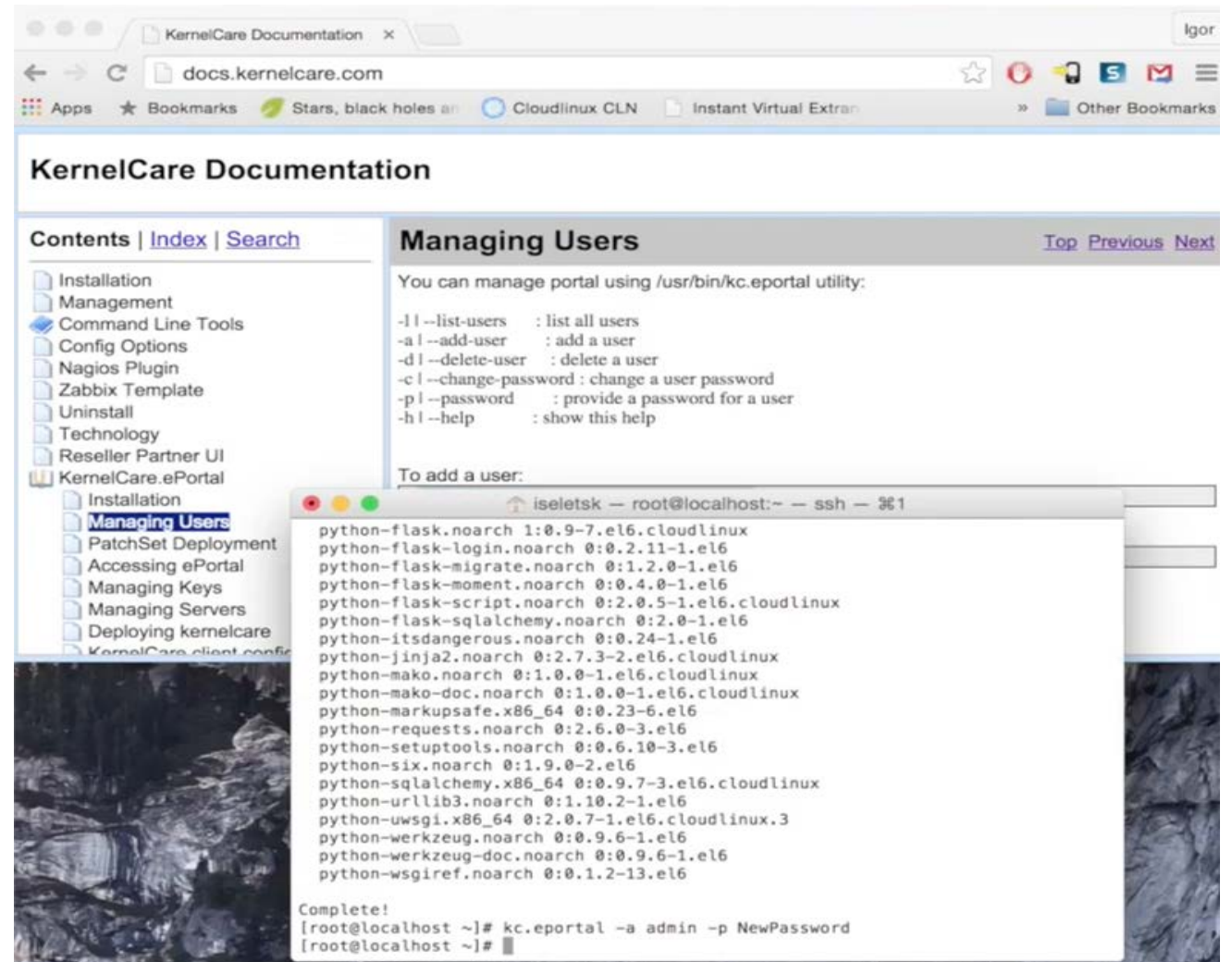
SUPPORTS MOST POPULAR LINUX DISTRIBUTIONS:

CentOS/RHEL/CloudLinux OS 6 & 7, CentOS 6 Plus, CentOS 7 Plus, CloudLinux OS 6 Hybrid, OpenVZ & Virtuozzo, Debian 7 & 8, Ubuntu 14.04 LTS & 16.04 LTS, Oracle Linux RHEL-compatible 6 & 7, Oracle Linux UEK 6 R3, Proxmox VE 3, 4 & 5, Xen4CentOS 6 & 7. Other kernels will follow. Custom kernel patching available.



Built for the Enterprise

KernelCare.ePortal,
an enterprise tool for security,
control, and flexibility, allows
Admins to manage patches for
servers located behind
the firewall.



The image shows a browser window displaying the KernelCare Documentation website. The page title is "KernelCare Documentation" and the URL is "docs.kernelcare.com". The navigation menu includes "Contents", "Index", and "Search". The main content area is titled "Managing Users" and contains the following text:

```
You can manage portal using /usr/bin/kc.eportal utility:
```

```
-l|--list-users : list all users
-a|--add-user  : add a user
-d|--delete-user : delete a user
-c|--change-password : change a user password
-p|--password  : provide a password for a user
-h|--help      : show this help
```

To add a user:

```
python-flask.noarch 1:0.9-7.el6.cloudlinux
python-flask-login.noarch 0:0.2.11-1.el6
python-flask-migrate.noarch 0:1.2.0-1.el6
python-flask-moment.noarch 0:0.4.0-1.el6
python-flask-script.noarch 0:2.0.5-1.el6.cloudlinux
python-flask-sqlalchemy.noarch 0:2.0-1.el6
python-itsdangerous.noarch 0:0.24-1.el6
python-jinja2.noarch 0:2.7.3-2.el6.cloudlinux
python-mako.noarch 0:1.0.0-1.el6.cloudlinux
python-mako-doc.noarch 0:1.0.0-1.el6.cloudlinux
python-markupsafe.x86_64 0:0.23-6.el6
python-requests.noarch 0:2.6.0-3.el6
python-setuptools.noarch 0:0.6.10-3.el6
python-six.noarch 0:1.9.0-2.el6
python-sqlalchemy.x86_64 0:0.9.7-3.el6.cloudlinux
python-urllib3.noarch 0:1.10.2-1.el6
python-uwsgi.x86_64 0:2.0.7-1.el6.cloudlinux.3
python-werkzeug.noarch 0:0.9.6-1.el6
python-werkzeug-doc.noarch 0:0.9.6-1.el6
python-wsgiref.noarch 0:0.1.2-13.el6
```

Complete!

```
[root@localhost ~]# kc.eportal -a admin -p NewPassword
[root@localhost ~]#
```

More information on KernelCare.ePortal can be found at cloudlinux.com/kernelcare-eportal

1,500+ companies, including Dell, Endurance and Liquid Web
keep their Linux servers on and secure with KernelCare

We are  CloudLinux

KernelCare is a product of CloudLinux, the company that is making Linux secure, stable and profitable since 2009. Its flagship **CloudLinux OS** powers over **20 million websites**.

175K+
servers running
securely without
reboots with
KernelCare

To learn more about **KernelCare for the Enterprise**, visit
<https://www.cloudlinux.com/kernelcare-enterprise>

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