TuxCare
We Take Care of Linux

CASE STUDY

Affinity Water Says Goodbye to Patching-Related Downtime with TuxCare

Summary

UK water supplier Affinity Water was unhappy with its lengthy and inconvenient patching approach, and began seeking out a rebootless, accelerated alternative. After implementing TuxCare's live patching solution, KernelCare Enterprise, the company can now automate patching for multiple Linux distributions while avoiding patching-related reboots and downtime – helping its team minimize its cybersecurity workload and achieve a better work-life balance.

Industry	
Water Supply	
Region	**Founded**
UK	2012
Headquarters	
Hatfield, Hertfordshire, UK	

The Challenge

Affinity Water is the largest water-only supplier in the United Kingdom. With a history dating back more than 130 years, they supply 3.83 million people in parts of London, Eastern England, and Southeastern England with an average of 950 million liters of water on a daily basis. The company's conventional Linux vulnerability patching approach involved scheduling downtime for a reboot, which would enable a new patch to be deployed to the Linux kernel – a process that was overly complicated, drawn out, and an unnecessary administrative overhead.

The organization's server reboots needed to be planned way ahead of time, and the coordination consumed more-than-ideal amounts of time and resources. The reboots usually needed to be scheduled at unsociable hours and involved significant email coordination and haggling between departments. Moreover, each reboot involved a mountain of documentation and management reports before it could finally be carried out.

Because rebooting was delayed, there was always a gap between patch release and patch application – sometimes lasting weeks or months. This was leaving their systems vulnerable to attackers, and potentially impacting their compliance with certain security agreements.

For a long time, Affinity Water didn't see any other way. The Linux kernel is prone to vulnerabilities, and vulnerabilities need patching – but they didn't know of any approach that could patch a kernel without needing to reboot. As a result, the inconvenient and prolonged reboot cycles continued.
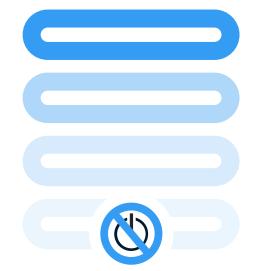
The Solution

After finding out that a process called live patching could deploy a Linux kernel patch without needing to reboot or experience any downtime, Affinity Water researched vendors that could help them adopt this type of approach – eventually discovering TuxCare's live patching solution, KernelCare Enterprise.

As the company runs a combination of different Linux distributions, including Red Hat, Oracle, and Ubuntu, the other live patching providers they evaluated wouldn't be suitable. After all, most live patching solutions are designed for a single distribution, like Ksplice. KernelCare Enterprise, on the other hand, delivers rebootless vulnerability patches for all popular enterprise Linux distributions.

With their multi-distribution environment and a need to eliminate patching-related reboots and downtime, Affinity Water opted to implement KernelCare Enterprise and adopt a live patching approach – simplifying and automating their vulnerability patching processes.

The Results

Once KernelCare was up and running, the Affinity Water team's previous worries about downtime and reboot cycles evaporated. The company noticed an immediate boost in overall operational efficiency. At the same time, the organization's compliance team was delighted that their systems are now consistently updated with the latest vulnerability patches.

Thanks to TuxCare's live patching technology, Affinity Water's system administrators are able to eliminate patching-related maintenance windows during off-hours – which means that they now do less weekend and nighttime work, helping them achieve a better work-life balance.

Another noticeable benefit was KernelCare's patch roll-back feature. While Affinity Water's system administrators were impressed with the patch turn-around time, they love the ability to roll back patches and run more tests if they need to – removing any concerns about whether a patch might affect performance or stability.

KernelCare freed Affinity Water from having to face the dilemma of sacrificing either security or uptime. With rebootless, zero-interruption live patching, they can have the best of both worlds. They are now secure, with a greatly reduced vulnerability exposure window and they no longer need to schedule downtime just to apply a patch. Plus, their team members have less of a headache when it comes to cybersecurity, and they also get their nights and weekends back.

Why TuxCare?

With TuxCare's family of enterprise Linux security solutions, organizations can automate vulnerability patching, minimize downtime, keep their applications secure and compliant, and get support from a team that knows Linux security best – covering their entire Linux estate, including most popular distributions, end-of-life systems, devices, libraries, and much more.

With the **KernelCare Enterprise** live patching solution, teams can put patching on autopilot for most popular distributions while avoiding downtime, disruptions, and unnecessary maintenance windows.

Extended Lifecycle Support (ELS) enables organizations to continue securely using Linux distributions and software languages that have reached end of life or no longer receive standard security support – delivering vulnerability patches for unsupported versions of CentOS, CentOS Stream, Ubuntu, Debian, Oracle Linux, PHP, and Python.

Our **Enterprise Support for AlmaLinux** offers the commercial support your business needs with break/fix support, automated live patching, extended security updates, continuous compliance, and pay-as-you-go hourly support bundles – giving you access to skilled AlmaLinux security experts whenever you need them.

With **SecureChain for Java**, companies gain access to a single trusted repository of independently verified and vulnerability-free Java packages and libraries, fully compliant with the NIST Secure Software Development Framework – so they can continue to innovate while maintaining the security of their applications.

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