Aqua Security drives container security from development to deployment

**Red Hat platform ensures security for a multinational company’s application**

“Aqua Security’s customers expect the company’s solutions to be Red Hat Certified, because it assures them that the combined solution has been tested and validated on Red Hat OpenShift and is supported by both Red Hat and Aqua Security.”

Upesh Patel, VP of business development, Aqua Security

**Introduction**

Aqua Security enabled a multinational logistics company to protect their containerized stack. Aqua Security provides container security for Red Hat® OpenShift® deployments. The Aqua solution is Red Hat Certified which assures customers that the combined solution has been tested and validated by Red Hat.

Founded in 2015, Aqua Security delivers a purpose-built platform for container and serverless application security that can be deployed on all major public clouds or on-premises and works with all major container orchestrators. Aqua Security has been a partner of Red Hat’s for many years with the goal of building the most secure and supportable environment for the Red Hat OpenShift platform.

Aqua can be natively deployed in a Red Hat OpenShift environment by deploying pods, services, and Daemonsets. The platform works as a layer of security that provides image assurance, runtime controls, protection against attacks, as well as visibility and compliance for OpenShift containerized applications.

**Enforcing security amid continuous change**

A multinational logistics and trucking company turned to containers to streamline its enterprise application development and scalability. Although trucking might be viewed as an old-world industry, the ability to drive efficiency through software is essential for competitive advantage just as it is in other industries. When the company’s trucks travel about nine million miles a day—equivalent to 360 trips around the earth—every bit of optimization translates into major savings and revenue gains.

The company serves more than two-thirds of the Fortune 500 companies from more than 160 facilities—and could not risk compromise in operational and logistics systems. With applications in constant flux—continuously deployed, updated, and redeployed—every day brings new chances to introduce risk into an already complicated environment.

**The need for greater visibility**

The trucking company was building enterprise applications with Linux containers, which are inherently open source but not readily transparent for security. Since Kubernetes-scale deployments can involve thousands of nodes running tens of thousands of containers that are frequently refreshed, the company required an automated solution that could provide a granular level of visibility into their container environment to ensure the integrity from development to production, and protect the applications they run.

The Red Hat OpenShift platform has built-in security such as role-based access controls, Security-Enhanced Linux® (SELinux)-enabled isolation, and checks throughout the container build process. However, there’s more focus on platform-level security than the content of the applications themselves.
Fluid security at the speed of DevOps

The Aqua Cloud Native Security Platform (CSP) was purpose-built to provide end-to-end security for containerized applications, on-premise or in the cloud, from development to runtime in production. Aqua CSP is natively deployed on Red Hat OpenShift for both Linux and Windows containers, offering container image assurance, runtime controls, and protection against attacks, as well as increased visibility and compliance for containerized applications.

Aqua worked to enable the trucking company’s in-house experts to protect their containerized stack:

- Build security controls into the container development pipeline in an automated, unobtrusive fashion;
- Protect container workloads against attacks and insider misuse in runtime;
- Ensure regulatory compliance using pre-configured policies provided by Aqua;
- Improve application isolation using controls that prevent privilege escalation, and advanced nano-segmentation.

Conclusion

Aqua CSP enables this transportation and logistics company to:

- **Manage risk in the container development pipeline.** Aqua continuously scans container images to verify that the DevOps process does not introduce vulnerabilities, bad configurations, or embedded sensitive data into the customer’s production environment.

- **Protect OpenShift application workloads in real time.** Aqua uses machine-learning to whitelisted intended container behavior and ensure that containers only do what they are supposed to do. Aqua continuously monitors running containers to detect and automatically block unauthorized container activity in real time and protect applications.

- **Comply with data protection and privacy regulations.** Aqua provides a full audit trail of container activity—access attempts, running executables, privilege escalations and more—and produces reports for compliance requirements.

About Aqua Security

Aqua Security helps enterprises secure their cloud native applications from development to production, whether they run containers, serverless or virtual machines. Aqua bridges the gap promoting business agility and accelerating digital transformation. [www.aquasec.com/](http://www.aquasec.com/)

About Red Hat

Red Hat is the world’s leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers integrate new and existing IT applications, develop cloud-native applications, standardize on our industry-leading operating system, and automate, secure, and manage complex environments. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500. As a strategic partner to cloud providers, system integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future.