Foghorn Delivers Kubernetes Based Blockchain Tracking Of Pharmaceuticals For Chronicled

FOGHORN

Software technology company Chronicled leverages blockchain to bring trust, efficiency, and automation to global supply chains. San Francisco based Chronicled develops solutions that enable decentralized blockchain networks to support multi-party supply chain ecosystems. By utilizing decentralized network architecture cross-organization business rules, industry compliance requirements are met.

CHRONICLED

THE SITUATION

Chronicled's technologies provide solutions for many industries, but as of late they have made a name for themselves by building software to help track pharmaceuticals. As a reaction to a 2012 meningitis outbreak linked to tainted drugs, the US Congress passed the Drug Supply Chain Security Act (DSCSA) mandating that tracking and security be connected to every pharmaceutical sold in the USA. With private labeling, resellers, product returns, mergers and acquisitions a technological solution was eluding the multi faceted pharma industry.

Where others saw problems, Chronicled saw opportunities and prescribed blockchain as the fix. In 2017, they initiated a platform for the life sciences industry called MediLedger. Industry giants Pfizer Inc., McKesson Corporation, AmerisourceBergen Corporation, and Premier Inc. joined Mediledger making it the de facto industry leader.

THE CHALLENGE

To root out unsafe counterfeit drugs and as mandated by the DSCSA, by November 27, 2019 100% of pharmaceutical units returned to wholesalers must have a unique, traceable product identifier before it could be resold. Chronicled aimed to deliver a first to market, customizable and decentralized supply chain management system based on the principles of blockchain. A holistic platform was needed to protect consumers, and at the same time not share business intelligence with cooperating yet competing partners.

Working alongside Chronicled's talented team of engineers and bringing decades of cloud engineering expertise, Foghorn's dedicated FogOpsSM team was tasked with creating a highly available, fault tolerant, self hosted application stack on Amazon Web Services to solve the chargeback and returns dilemma.

THE RESULTS

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>
> **AJIT KULKANI / PRODUCT LEAD CHRONICLED**

Utilizing industry best practices, Foghorn assisted with the design and build of a scalable Kubernetes based infrastructure stack. The outcome was a self healing, highly available, fault tolerant Kubernetes workload that automated everything from ssl generation/ renewal, to cluster monitoring and dns automation. A Grafana and Prometheus based logging system provides real item analytics. The first iteration will continue to evolve, and time and money will be saved when the immutable and reusable FogSource™ built m-kubernetes module is replaced with m-eks module. Maintenance requirements will be reduced by utilizing the AWS managed Kubernetes service for the control plane.

Chronicled's automated AWS stack has increased agility and speed of product delivery, while minimizing man made errors. New customer onboarding times have dramatically improved with spin up now taking just 1 to 2 hours, (a process that could take a few days when done manually). Their new Infrastructure as Code (IaC) ecosystem will scale as Chronicled and Medileger continue delivering their prescription of market leading tracking and compliance for the pharmaceutical industry.

"Foghorn's expertise with Kubernetes, AWS,

and Terraform was key in the design and implementation of our modular, automated customer environments,"shares Ajit Kulkani, Product Lead at Chronicled. Chronicled recently partnered with SAP to bring this technology to all of their customers. With Foghorn and Chronicled's agile design and scalable infrastructure the pharmaceutical supply chain provides greater peace of mind to industry, regulators and consumers.

"Chronicled, utilizing AWS's best-in-breed containerized infrastructure tools, has confirmed Chronicled as market leaders in creating a platform that makes the pharmaceutical supply chain more transparent, accountable and compliant," shares Foghorn's CTO Peter Roosakos. "Working alongside Chronicled's talented team of engineers and AWS, Foghorn was proud to have assisted in the creation of their revolutionary and innovative blockchain solution that helps drug companies, consumers and regulators achieve peace of mind."