

Block tackles software supply chain security with Chainguard Enforce

Webscale companies can often see around the corner and spot new trends in security well before the rest of the market even feels the pain. This is a story of Block Inc.'s journey to build bespoke solutions to software supply chain security, and why they ultimately decided to standardize and innovate on Chainguard Enforce.



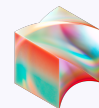
Challenge

Block, Inc. is a global technology company with a focus on financial services serving hundreds of millions of global customers and processes billions of transactions daily. Made up of Square, Cash App, Spiral, TIDAL, and TBD, its focus is on building tools to help more people access the economy.

While many organizations are still early in their software supply chain journeys, Block's security engineering and developer teams are already years into their investment in methods to secure the supply chain by default. Long before high profile incidents like SolarWinds and Log4j, Block created its own software supply chain attestation and security policy enforcement agent.

Block lacked a single, holistic solution for building trust in their software artifacts despite the company's focus on software supply chain security and utilizing several internally built and open source tools.

As Block continued to grow and scale its homegrown solutions for software supply chain security, it sought broader functionality that brought software attestation and enforcement closer to developer workflow, tighter integration with its Kubernetes cloud infrastructure environments, and built to scale globally to its tens of thousands of global engineers and their build environments.



BLOCK

Industry
Technology

Region
Global

Cloud platform
Kubernetes



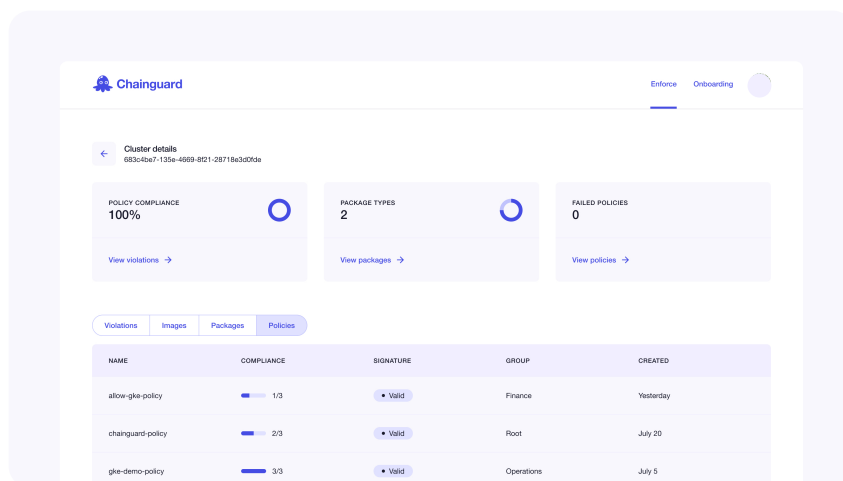
Solution

That's when Block was introduced to Chainguard and its Enforce platform. Chainguard Enforce is designed to deliver a holistic solution for software signing, attestation storage, policy creation, and enforcement. Chainguard Enforce meets Block's needs because it allows the team to consolidate its internal tooling into one comprehensive solution, providing complete visibility into Block's overall software supply chain security posture. Additionally, the platform provides Block's developers and operations team easy onboarding and integration points to quickly address security requirements across their organization.

With Chainguard Enforce, Block can centrally manage policies with fine-grained controls that ensure only trusted software is being deployed in its environment, as well as easily deploy policies to multiple clusters in its fleet with a single step. Access to Chainguard Enforce's rich metadata helps the team understand their supply chain security metrics and enables them to build out security alerting to keep customers updated.

"Chainguard Enforce enables Block to have continuous compliance and policies that help address software supply chain threats. With Chainguard Enforce, we're able to seamlessly roll out policies across the organization like requiring only signed images for deployment, which helps us fill gaps in understanding what software we can trust in our environments and where it came from."

Josh Lemos
CISO, Block



In mapping requirements during the course of the implementation, the Chainguard Customer Engineering team identified that Block's key feature requests needed updates not only to the Chainguard Enforce platform, but also to the open source Sigstore project, which has become the de facto software signing method not only for Kubernetes, but also for the world's top three programming languages. The Chainguard team addressed concerns and provided specific training on both.

The following integrations and functionality were delivered in less than two months:

- Exception and failure handling management
- Fine-grained signature validation along with error handling
- Eventing and alerting/denials based on policies along with corrective actions in UI and CLI
- Better Container Image Glob management for improved policy creation
- Integrations to existing Admission Controller architecture

Functionality and testing between the engineering teams were accomplished rapidly, supporting Block's internal build tools and infrastructure in a matter of weeks.

What's next

The software supply chain security landscape is constantly evolving from the tactics and techniques malicious actors use to the standards and frameworks governments around the world are putting into place.

Chainguard will work with Block to scale all of its workloads and make the necessary infrastructure adjustments to ensure protection against emerging supply chain threats. Block's path forward entails working on automated deployment and change management needed to further integrate their systems to allow for build and many other forms of provenance. The expanding and intuitive policy sets from Chainguard Enforce and the direct feedback loop with Chainguard engineering give Block the foundation it needs to fully scale its software supply chain security approach across all environments.

"Chainguard is bringing an end-user-first approach to a deeply complex problem area. The team has been instrumental in helping us wrap our heads around the software supply chain landscape and has provided clear guidance and support for how we get to a software supply chain that is secure by default. Chainguard's platform delivers the right balance between providing high-level visibility into our software supply chain and giving developers the hands-on tooling they need to build a secure foundation from the start. Chainguard is the cornerstone of Block's strategy in this area."

Drew Hintz
Head of Product Security Assurance, Block

About Chainguard

Chainguard is the first developer platform for software supply chain security, enabling developers everywhere to ship secure code. It is founded by the industry's leading experts on open source software, security and cloud native development and is backed by Sequoia, Amplify Partners, the Chainsmokers, and more. Chainguard's product portfolio includes Chainguard Enforce, Chainguard Images, and Professional Services. Customers range from Fortune 500 companies in banking, fintech, government and infrastructure to startups and SMBs. Don't break the chain—reach out for a demo today!

Chainguard

To learn more about how Chainguard Enforce can help you secure your software supply chain reach out at contact@chainguard.dev