

CASE STUDY | BASTILLE

Leader in Enterprise Threat Defined Radio Launches New CJ/CD System

Bastille

Launched in 2014, Bastille is the leader in enterprise threat detection through softwaredefined radio.

Named to Inc. 5000 List of fastest-growing private companies, Bastille provides full visibility into mobile, wireless, and Internet of Things devices inside an enterprise's corporate airspace.

Its patented software-defined radio and machine learning technology senses, identifies and localizes threats, providing security teams the ability to accurately quantify risk and mitigate threats that could pose a danger to network infrastructure.

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 - Christian Sepulveda, VP Engineering

CHALLENGE

- Balancing
 infrastructure
 development needs
 while focusing on
 customer value
- Bridging the CI/CD gap
- Lack of agility, speed, and visibility

BOB RUTHERFORD Co-founder & CEO

Bastille has been a cloud native organization since its inception, with an engineering team that is well versed in the various DevOps practices and services. However, they realized that infrastructure, while a necessary expense, was orthogonal to delivering customer value. **DevOps, itself, isn't the mission of Bastille**, which made it a perfect fit for bringing in an external team to help move them to the next stage.

According to Christian Sepulveda, VP Engineering, "Like any engineering organization, we needed to invest in continuous builds, and metrics and monitoring. However, such infrastructure is a distraction because our focus should be on advancing our customers and products."

CONTINUOUS INTEGRATION & DEPLOYMENT

SuperOrbital worked with Bastille to identify the fundamental building blocks of infrastructure that would unlock their velocity: CI/CD and Monitoring ϑ Alerting.

Bastille needed a CI/CD system that was dependable, highly secure, and fit well within an IoT organization. SuperOrbital helped implement a system that provided the cybersecurity company with greater agility, security, and speed, including:



- The ability to run tests on the company's own servers, resulting in a faster test run time
- Ensuring proprietary code and sensitive information stayed behind the company's firewall
- Integration with sensors running locally in the office.

To help move the team toward a test-first mentality, visibility was brought to the build process through a centralized mounted physical build monitor.

Finally, to improve agility and ensure Bastille's deploy technology was consistently exercised, a continual deployment process was implemented in a staging environment.

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VALUE CREATED

- Bespoke tools to help collect distinctive datasets
- Increased engineering operational visibility
- Knowledge transfer and documentation

SOLUTIONS

- Custom-built agentbased system
- DevOps best practices
 δ strategy
- Subject matter expertise

MONITORING & ALERTING

As an IoT company, Bastille faced many challenges around monitoring, including an immense volume of data. The type of information that must be tracked to understand the health of the company's systems is highly unique. It was essential to have a strong monitoring and alerting foundation with bespoke tools to collect distinctive datasets.

SuperOrbital sat down with the entire team to understand their needs and a dozen high-level metrics and KPIs were identified. This helped determine where increased engineering operational visibility was needed.

An overview of the landscape of available tools was provided, and SignalFX was chosen as the base for Bastille's monitoring and alerting system.

An agent-based system was custom-built to collect metrics from Bastille's unique data sources. Care was taken to ensure the new system coordinated with other internal tools in language, conventions, and deployment practices, making it as easy as possible for the existing team to add new metrics later.

Finally, all of the data gleaned was organized into a useful form where analytics and alerting thresholds were added, and then displayed on an information radiator to increase awareness for the entire team.

"The knowledge transfer and documentation for my team was easy. SuperOrbital was the right choice," noted Christian.

As the engagement was closed out, documentation was double-checked, a demo of the system was given to the team, and they were walked through the codebase. A key to the project's success was ensuring strong continuity of ownership after disengagement.



SuperOrbital specializes in cloud engineering, DevOps workshops, and all things Kubernetes. Working as your technical partner, we embed seasoned cloud engineers within your team to help you master even the hardest challenges. Our live, remote DevOps workshops provide you with subject matter experts that deliver outstanding results. To learn more about how SuperOrbital can transform your company or supercharge your skills, visit superorbital.jo.