



High-Velocity Cloud Security at Scale



JUPITERONE.

Introduction

Establishing a proactive, high-velocity cloud security framework is required in today's cloud-focused enterprises. When it comes to cloud projects, most security organizations today find themselves in one of two positions. They are either in passive mode, meaning not blocking but not actively supporting cloud projects, or they are in proactive mode and instituting new ways of operating security at the speed of cloud. Over the past few years, BreakFree Solutions has put our clients on the path to effective cloud usage by establishing and scaling a new cloud security operating framework. The BreakFree Cloud Security Framework ensures proactive, effective security and compliance without limiting velocity; it accounts for cross-functional teams, cloud security capabilities, agile, automation, and DevOps.

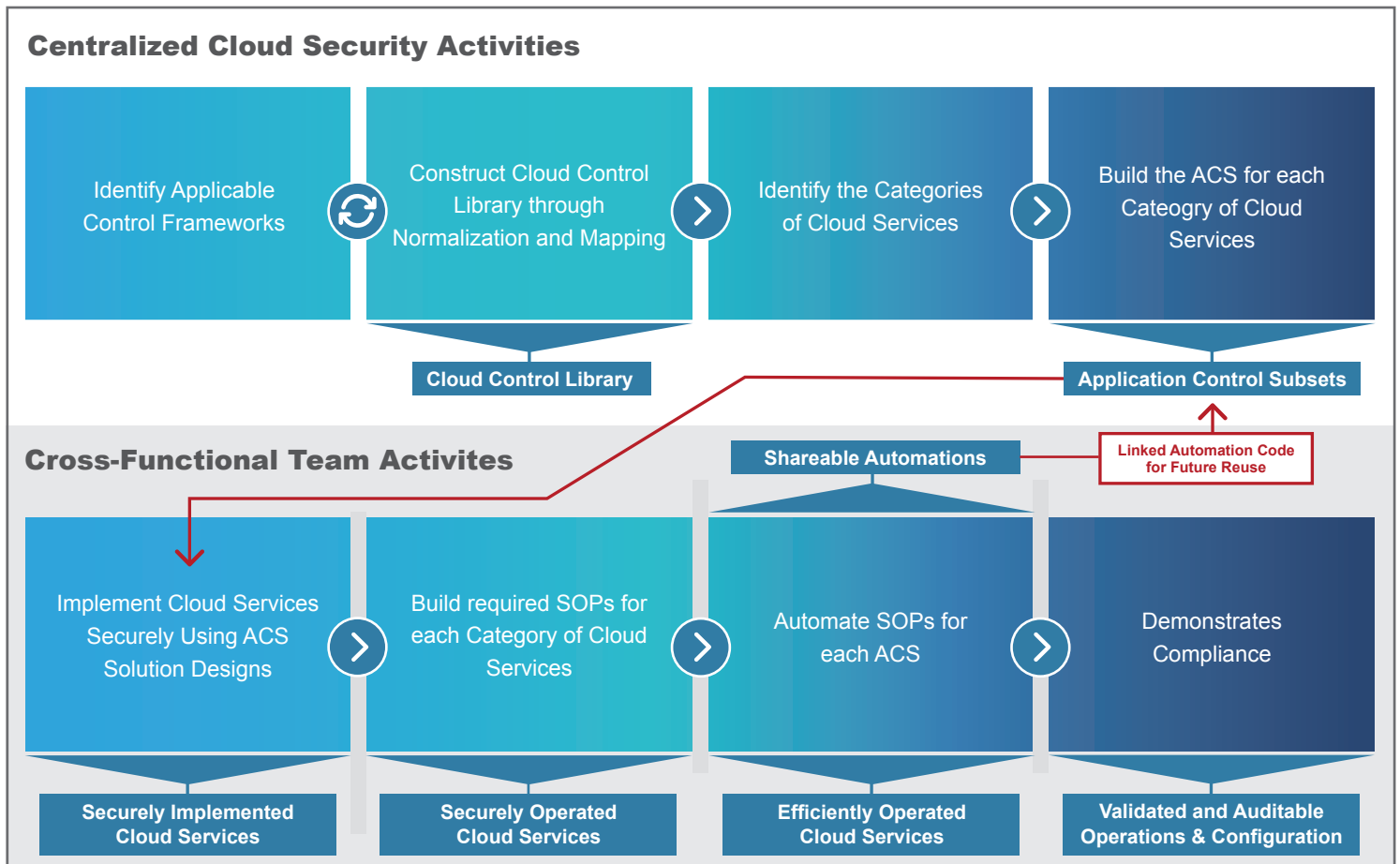
Initially, there was substantial overhead required to operate the framework efficiently due to complex processes with steep learning curves that required manual, spreadsheet-focused execution. Fortunately, we recently discovered JupiterOne, which we now view as a critical piece of the BreakFree Cloud Security Framework. The JupiterOne platform elevates our framework by enabling the creation and management of the entire security process. This Insight Report illustrates how our cloud security framework and JupiterOne work in tangent to help enterprises evolve their security in our current cloud era.

BreakFree Enterprise DevOps Framework Overview

The BreakFree Cloud Security Framework was created in response to our clients attempting to use traditional perimeter-based security for cloud. Perimeter-based security methods are not only ineffective but actually limit cloud capabilities. Enterprise IT needs to enable easily consumable and highly diverse consumption-based cloud solutions through an integrated, up-front approach to security and compliance.

Our framework ensures cloud solutions are secure and compliant by integrating typically segmented processes, including control library creation, regulatory mapping, solution design, standard operating procedure implementation and execution. Leveraging our framework ensures solutions and data in the cloud have the right security in place to demonstrate compliance, and it ensures security and compliance can be applied rapidly through reusable control sets, designs, and automations. Our framework is also built to help companies implement the appropriate processes and tools for decentralizing various aspects of security required for cross-functional teams to operate at the required velocity. At the same time, centralized activities that need to be performed by security teams are streamlined with the end goal being to meet the velocity requirements of decentralized teams.

Visual representation of the BreakFree Cloud Security Framework.



The following is a breakdown of the major components of the BreakFree Cloud Security Framework.

Cloud Control Library

The Cloud Control Library normalizes public control libraries into a condensed organization-specific control library. The standards and guidelines are selected based on what you need to do or what you know you need to do. Take the standards and plug them into the Cloud Control Library and normalize them. The Cloud Control Library is the universe of controls your business might need to put in place.

Application Control Subsets

Application Control Subsets account for the fact each solution doesn't necessarily need to have all the controls in place, but they'll likely need a subset of controls from the Cloud Control Library. The selection of these controls and the associated output is the application control subset. Application control subsets can be templated for use by future solutions with similar requirements, or in other words, application control subsets are built in a standardized and automated way that is aligned to the control sets, eliminating the need to recreate the wheel every time. For example, Azure Platform Application with PCI data is an application control subset.

ACS Driven Solution Designs

ACS Driven Solution Designs are a method teams use to express the engineering behind secure cloud solutions designed iteratively over time, the technical designs for the components of the cloud solutions, and how they will plan to implement and verify component application controls from the control subset.

Security Validation, Compliance, and Audit

Once audit readiness is achieved, evidence is delivered on demand. Compliance levels are easily demonstrated, reviewed, and reported.

By executing our framework, your project teams and business units looking to consume cloud services can now pull from the databases of application control subsets, solution designs, and SOP automation artifacts in order to reduce requirement analysis and rework, and accelerate the consumption of code necessary for consuming cloud services.

Implementing the BreakFree Cloud Security Framework with JupiterOne

The effectiveness of the BreakFree Cloud Security Framework has been proven through years of working with clients to ensure security and compliance in their enterprises. However, our framework was still reliant on manual, spreadsheet-based approaches for organizing, executing, and delivering core processes. Although automation was heavily utilized in implementing core cloud solutions, there was very little technology to assist with the actual process execution of our framework.

In developing our cloud security framework, we searched for a technology solution that could accelerate and increase successful adoption. Our goal was a solution that would lower the complexities, flatten the learning curve, and increase the use of automation to enhance our framework in its current state. After having been unable to identify a worthwhile tool, we set our sights on developing our own solution until we discovered JupiterOne.

JupiterOne is a tool built to automate and simplify high-velocity cloud security by centralizing the process into a single UI, and more importantly, a signal set of APIs. With JupiterOne, security teams can develop and operate their core processes through code and allow teams utilizing the processes to do the same. Compliance standards, controls, evidence collection, verification, and all other aspects of good cloud security operations are done through code and JupiterOne.

JupiterOne is in complete alignment with the processes our BreakFree Cloud Security Framework establishes, in addition to the automation and DevSecOps-first approach, which is needed to successfully scale use and operations of the framework. JupiterOne was created by an enterprise IT security group who faced the same problem we did — how to operate newly developed cloud security processes efficiently and at scale. They built the tool and made it available to the rest of the IT world. This means the platform is not theoretical, rather built for a real-world need — similar to why we developed our cloud security framework in the first place. Sympatico, is the best word to describe our analysis.



The following is a breakdown of how JupiterOne impacts and simplifies the processes for each of the BreakFree Cloud Security Framework components.

Cloud Control Library

The JupiterOne platform allows you to host a library of controls in the JupiterOne system. Also, JupiterOne lets you manage the libraries of controls through code. You can upload version-controlled code representing your control library, and JupiterOne interprets the code and puts it into a digital interface that is pleasing and understandable. No more complexity around sharing the libraries, no more complexity with managing versions, and most importantly, no more giant control libraries in a spreadsheet form.

Application Control Subsets

JupiterOne allows you to create control subsets in code, just like the central library, and then assign specific applications to those subsets. This gives you a standard interface to create, assign, and track application control subsets. JupiterOne also grants visibility into how other teams have solved technical controls and allows centralized publishing of technical solutions for control implementation and verification.

ACS Driven Solution Designs

JupiterOne allows teams to specify how they plan to meet the control — either as an automated check or by providing evidence done through another automated means. Teams can engineer solutions to controls and send verification that the control is in place, or even use JupiterOne for automated checking that the control is being met. Teams are also able to write automated testing of compliance. This enables them to solve how they are going to implement the control and allows centralized security operations to monitor and gain visibility into the state of cloud solutions and their supporting application control subsets.

Ultimately, solution designs contain actual engineer specifications for control implementation in a common JupiterOne-centric language of design. This is how you effectively engineer security into a solution.

Security Validation, Compliance, and Audit

At the end of the day, you need to demonstrate you have the necessary controls in place. JupiterOne includes a centralized platform for verification of control implementation, evidence control automation, and audit reporting. JupiterOne becomes your cloud security configuration and audit source of record. This is something that was not possible with legacy compliance tools or manual evidence collection, which struggle to integrate with the highly diverse cloud and DevOps tooling ecosystem.



Conclusion

Enterprise IT security needs to evolve in order to be effective in cloud. IT security needs to be an integral part of cross-functional teams, move at the same velocity of cloud, and be effective at ensuring data and applications are secure and compliant. Our BreakFree Cloud Security Framework establishes the key artifacts and processes required to operate a high-velocity cloud security operating framework. Now with the availability of the JupiterOne platform, the framework is able to reach new levels of scalability and operability.

The BreakFree Cloud Security Framework, combined with JupiterOne, delivers a simplified approach to integrating security and compliance into cloud and DevOps teams. It accelerates the consumption of code for cloud-based solutions, which is critical for increasing business velocity.

Ready to learn more about how the BreakFree Cloud Security Framework and JupiterOne can solve your IT security and compliance challenges? To further explore implementing our cloud security framework with JupiterOne, register for our free webinar on **Tuesday, January 14, 2020, from 11:00 a.m. to 12:00 p.m. CST.** We also offer a Cloud Security Workshop that will help your security team better understand the critical importance of high-velocity cloud security. Schedule yours today by reaching out to us at BreakFreeSolutions.com.

About BreakFree Solutions

BreakFree Solutions are a diverse team of IT experts with skills in cloud-native design, cloud architecture, infrastructure automation, software development, continuous deployment, security, DevOps, and Agile delivery. BreakFree offers practical cloud, DevOps, and automation professional services to enterprise companies. BreakFree's services are based on clearly defined positions on the future of IT operations shaped by our decades of real-world experience.

About JUPITERONE.

JupiterOne was built around the notion that complexity is the enemy of security operations and assurance. To combat complexity, organizations need a centralized tool that ingests data from all of their different platforms, mapping relationships and measuring changes in their environment in a single, searchable repository. JupiterOne is the first software platform that enables you to create and manage your entire security process from policy creation, to compliance and certifications, to operating a secure cloud infrastructure while your company quickly grows and evolves.