

**Automate the deployment and securing of cloud based simple & complex services and applications for self-service consumption in MOC using CONS3RT**

## Project logistics

- Mentor: Peter Walsh (peter.walsh-at-jackpinetech-dot-com )
- Min-max team size: 3-4
- Expected project hours per week (per team member): 4-6
- Will the project be open source? Yes

## Preferred experience

- Scripting (PowerShell, Bash, Groovy, or any higher level language) (important)
- Virtualization concepts (useful)
- Web services (nice to have)

## Overview



**If it's not  
<automated>  
...it's  
BROKEN**

*"If it is not automated, it is broken"* - An axiom that could not be more true in the cloud and security world. Those involved in the design, delivery and use of cloud applications and services prove it to themselves everyday. The work we do consists of many pieces pulled together into an orchestrated dance. Security is often applied late in the cycle as an overhead task rather than being baked in throughout the lifecycle. You may do the same thing on Monday, Tuesday, Wednesday, but then a message comes in or the phone rings and you miss a step. And that is all that is needed for a vulnerability.

Automation is not just about speed; it delivers consistency, repeatability and comprehensive coverage, all of which are paramount to security. SecDevOps is a critical and growing specialty in industry.

CONS3RT gives users with a better way to deploy, validate, and secure the infrastructure and systems they field in the cloud. By using a modular approach with a broad library of software and security components - application, utilities, data sets, lock downs, configurations, etc - users can automate the entire lifecycle of their environments. Users leverage this library of resources to automate the execution and securing anything from simple workstations to complex environments (e.g 50 or more servers). Every thing in the library can be shared and reused "as is" and/or used as the basis for something more.

Working with a set of experienced asset developers, the team will identify options for security elements for fielding systems that impact the the user community. After evaluating alternatives, the team will select a target components in the area of system and infrastructure security configuration, assessment and monitoring. Then the team will develop, integrate, and test the assets to make it real. The resulting assets and designs will be shared and used across the CONS3RT community in multiple sites, including the MOC.



## **What is CONS3RT?**

[CONS3RT](#) is a leading-edge cloud and security orchestration service providing users with DevOps Automation and Validation. There are several tools that target cloud management and more that provide DevOps, but CONS3RT focuses on cloud usefulness and the strategic needs of DevOps so users can get things done! Users can leverage the Provisioning, Build and Test as a Service capabilities so their organization can achieve the highest levels of continuous integration, continuous delivery and strongest security.



## **Who is Jackpine?**

Jackpine Technologies is a Boston area start-up focused on making cloud useful & secure. Our mission is to empower organizations to create exceptional software through innovative practices, technologies and products. We are small, nimble team with a great collaborative atmosphere. To date, all of our interns have stuck around after graduation so we must be doing something right. Students participating in this project will have access to some of the industry leaders in cloud DevOps.

## **Some Technologies you will learn/use:**

- SecutCloud orchestration
- DevOps principles
- Software development discipline
- Application integration
- Use of APIs