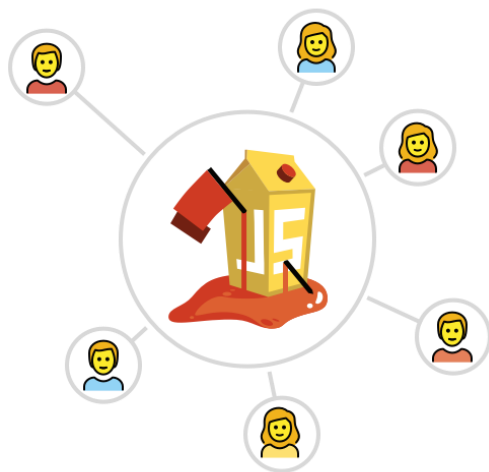




MultiJuicer Introduction

<https://open-security-summit.org/>



MultiJuicer

Multi User Plattform for OWASP Juice Shop

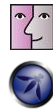


<https://github.com/iteratec/multi-juicer>



Robert Seedorff

CISO @ [iteratec](#)
OWASP Member



[@r_seedorff](#)

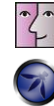


[@rseedorff](#)



Jannik Hollenbach

Security Engineer @ [iteratec](#)
OWASP Juice Shop Core Team



[@j12934](#)



[@j12934](#)

Our passion is to deliver secure software because we believe that secure software development is crucial in a digital world

**Developing secure software is not that hard
as developer** often might think

It all starts as always with a shared mindset + culture,
learning by doing and of course developer trainings 😊



How do you do
hands-on security trainings?



With OWASP Juice Shop, obviously 😊

1. 95+ Challenges with lots of variability
2. Realistic challenges
3. Interactive Hacking Instructor for newbies
4. Open Source

But How?

Option 1: Local Installation

Just clone the repo and run “npm install”

Can I use my 5 year old
Node.js 4 Installation?

I'm not allowed to install Software on
my Enterprise Windows 95 Laptop

I already have something
running on port 3000

I don't have
Node.js

What is a terminal?


Anything that can go wrong
will go wrong

Why is my fan spinning up?

The NPM install is crashing

It says it's running but i can't
access it via localhost:3000

Is it normal that this
takes 15 minutes?

My enterprise npm installation is only
allowed to fetch packages from our
enterprise package repository



Local Installation is a great way to waste the first hour(s) of your security training

Option 2: Central Hosting

Host all Instances in a Cloud(ish) environment.

Trivial Solution

Start 10 Instances via Docker & Bash (From [Pwning Juice Shop](#)):

```
for i in {10..19}; do docker run -d -p 40$i:3000 bkimminich/juice-shop; done
```

That's totally fine!

But comes with some downsides:

1. You need to distribute the addresses
2. Corporate firewall blocking random ports
3. Not “cheat proof”, users can enumerate the ports to find the other instances
4. Hard for organisers to keep an overview over the instances
5. You need to know how many participants you'll have in advance or add instances by hand
6. Running multiple trainings in parallel might be a hassle
7. Don't forget to cleanup everything afterwards

Option 3: Central Hosting based on

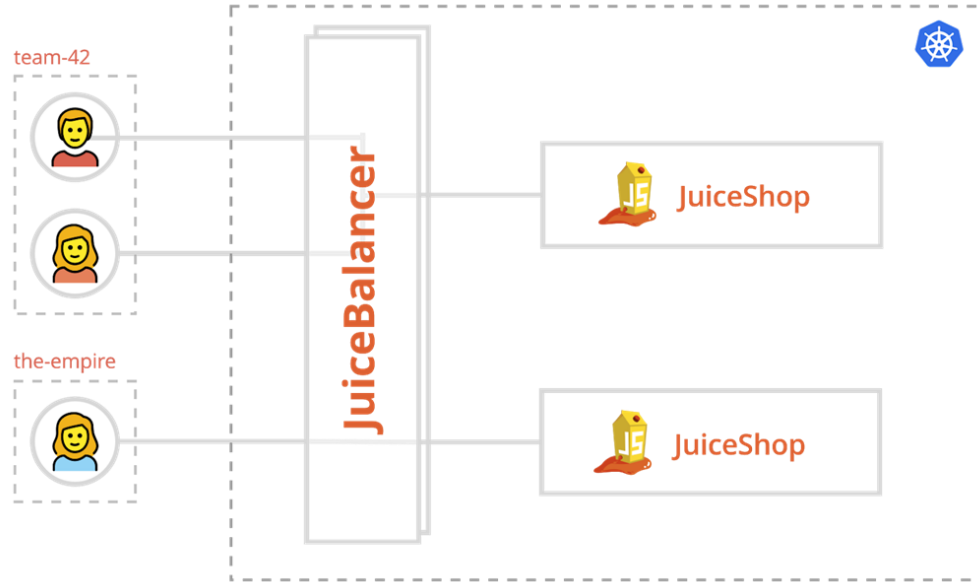


MultiJuicer

Multi User Plattform for OWASP Juice Shop



- ★ Runs on a single domain, comes with a Load Balancer sending the traffic to the participants Juice Shop instance
- ★ Dynamically create new Juice Shop instances when needed
- ★ Juice Shop instances are “isolated” from each other to prevent cheating
- ★ Backup and auto apply challenge progress in case of Juice Shop container restarts
- ★ Cleanup old & unused instances automatically

How it works



 Demo 

Training Setup Comparison

	Option #1 Local Installs	Option #2 “docker run ...” Hosting	Option #3 MultiJuicer
	<ul style="list-style-type: none"> • Managed by Participants • Nothing to manage by you 	<ul style="list-style-type: none"> • Saves time during training • Easy Setup 	<ul style="list-style-type: none"> • Saves time during training • Single address • Monitorable • Scales automatically • Somewhat cheat proof • Automatically cleans up instances after trainings
	<ul style="list-style-type: none"> • Time Intensive during trainings • Need to be a node expert 	<ul style="list-style-type: none"> • Managed by you • Hard to monitor • Multiple addresses • Might be blocked in corporate networks 	<ul style="list-style-type: none"> • Managed by you • Need to maintain kubernetes cluster

Questions ☺?

Topics for the DeepDive Session

(15 June 2020, 6:00 pm CEST)

- How to install and configure MultiJuicer?
 - Guides based on AWS, GCP, DigitalOcean, Azure already available
- How to customize the MultiJuicer + JuiceShop?
- How you track the progress of the hackers?
 - Which metrics are missing?
- Implementation details regarding kubernetes
- **Your suggestion:** tell us now or write us later 😊

How you can help?



Try it out!



Star the repo



File issues



Write setups guides for your favorite cloud

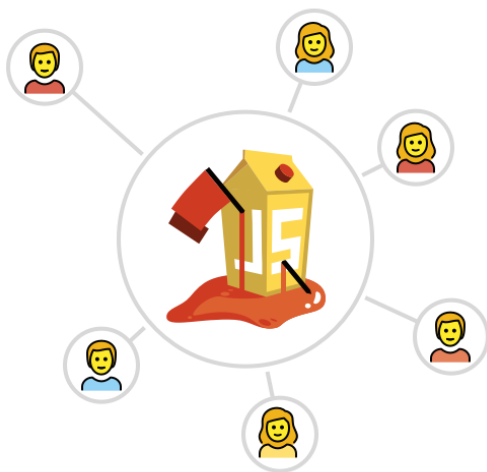


Share your feedback and experience with us



github.com/iteratec/multi-juicer

Thanks for listening, stay safe!



MultiJuicer

Multi User Plattform for OWASP Juice Shop



github.com/iteratec/multi-juicer