# KubeCon | CloudNativeCon

## North America 2019

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# Attacking and Defending Kubernetes Clusters

*A Guided Tour*

@tabbysable, @jimmesta, @petermbenjamin, @bradgeesaman

# Attacking and Defending K8s Clusters

To be ready to go ***before*** we start, please:

1. Find a seat that you are comfortable with.
2. Connect your laptop to the wireless network.
3. Visit **https://securekubernetes.com** and complete the instructions in the **Getting Connected** section.

*Don't fear! You only need a web browser and the ability to copy/paste commands to be able to fully participate!*

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# Attacking and Defending Kubernetes Clusters

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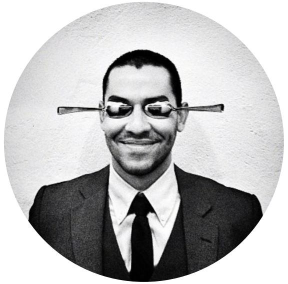
# Meet Your Guides

Tabitha Sable
@tabbysable

Jimmy Mesta
@jimmesta



Peter Benjamin
@petermbenjamin

Brad Geesaman
@bradgeesaman

*take a moment to meet your fine neighbors, too*

# Important Rules to Follow

1. Follow the provided instructions
2. ***Whisper*** while presenters are presenting
3. Ask your neighbor for help if you need it
    a. Confirm they want assistance ***before*** offering help
4. Raise your hand if you are completely stuck
5. Attack ***only*** your own cluster
6. Do not attack anything from your cluster
7. Remember to have fun

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# Plan of Attack (and Defense)

| Activity | Time |
|---|---|
| Scenario 1: Guided Attack and Defense | 25 mins |
| Scenario 2: Guided Attack and Defense | 25 mins |
| Self-Guided Bonus Challenges | 12 mins |
| Guided Bonus Challenges Walkthrough | 12 mins |

# Getting Connected

## Open the following URL in a Private/Incognito Window

## https://securekubernetes.com

# Free Compute

## Scenario 1

# Guided Attack and Defense

Proceed to **Scenario 1** ***Attack*** at

**https://securekubernetes.com**

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# Free Compute: Recap

- How did **Red** gain access?
- What was **Red** able to do?

- What did **Blue** discover?
- What did **Blue** do?
- What did **Blue** miss?

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# Persistence

Scenario 2

# Guided Attack and Defense

Proceed to **Scenario 2** ***Attack*** at

**https://securekubernetes.com**

# Persistence: Recap

- How did **DarkRed** gain access?
- What was **DarkRed** able to do?

- What did **Blue** discover?
- How did **Blue** remediate?

# Bonus Challenges

## Scenario 3

# Bonus Challenges

- See if you can go even further and discover two more issues.
- If you complete both challenges, *whisper* the answers to us to get an **expert edition** sticker!

Proceed to **Bonus Challenges** at

**https://securekubernetes.com**

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# Bonus Challenges: Walkthrough

- Bonus Challenge 1: **Red**
  - Exploring the underlying host
- Bonus Challenge 2: **Blue**
  - Finding even more evidence of persistence
  - Tracing back to the attacker

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# Thank You!

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