

#### DESIGNING AN OPEN CYBERSECURITY TRAINING AND EXERCISE

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# **KYPO Cyber Range Platform in a Nutshell**

- First open-source cyber range in EU
- Developed by Masaryk University
- Build on top of the OpenStack cloud
- Open format for training and exercises
- Available for download and testing







#### **KYPO Demonstration**

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MARKING.	Home / Training Runs			
Trainings				
Definition	Training Run Overview			
Instance	Access Training			
Run	Fill in access token provided by the organizer to start the training			
	CONCORDIA × - Access Token PIN *			
Sandboxes				
Definition	Access			
Pool				
Administration				
User	Title Date Completed Levels			
Group				
Microservice	Items per page: 10 ▼ 0 of 0   < < > >			



## Platform

#### Training

- CTF-like hands-on training
- Hands-on **red** or **blue** team event
- Focused on improving skills
- Free training content available

#### Exercises

• The second most realistic exercise

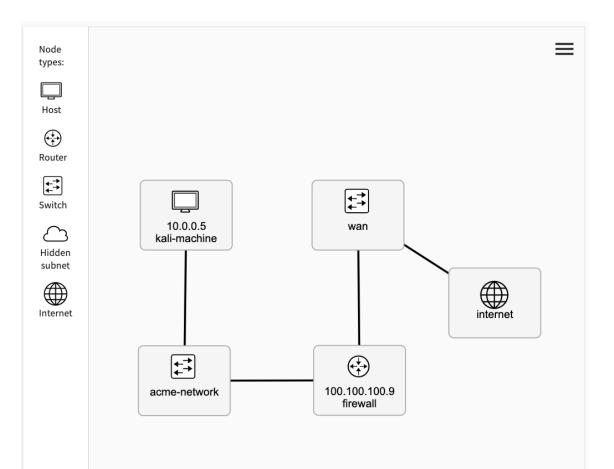
CONCORDIA

- Focused on **red/blue** team activity
- Multidomain event
- Available as a service



# Training

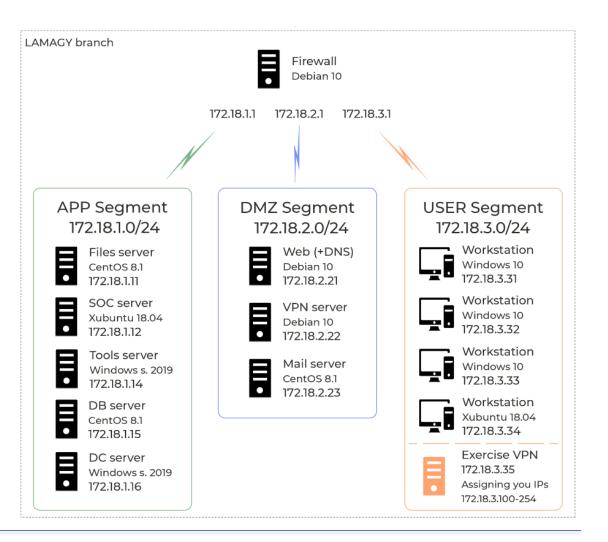
- Hands-on **red** or **blue** team event
- Level based structured learning
- Questionaries available
- Monitoring and feedback available
- Several success stories





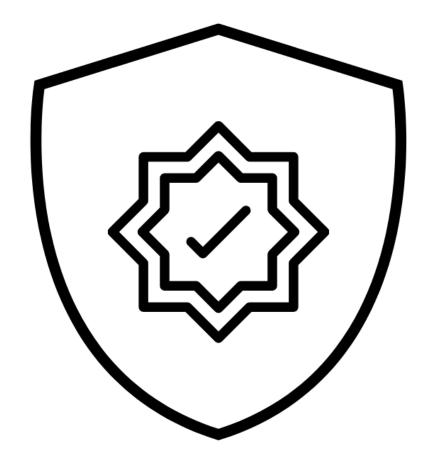
### **Exercises**

- Technical red/blue team exercise
- Realistic attacks from red team
- Realistic tools for blue team
- Semirealistic infrastructure
- Emulated users and traffic
- Multiple success stories



### How to design a quality training or exercise?

- Listen to your "customer" and ask questions
- Clear definition of goals or needs
- Connection with frameworks
- Inspiration in real-life attacks
- Multidomain approach to the topic
- An interesting story to put it all together

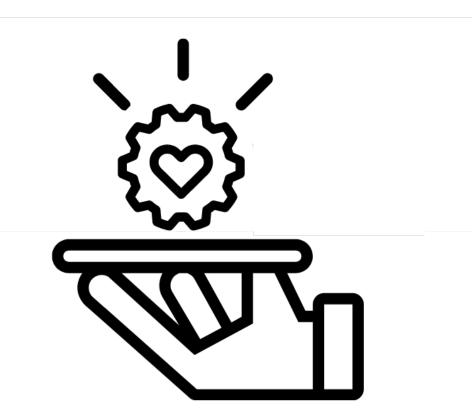






# **Advantages of Open Training and Exercises**

- Human and machine-readable format
- Exchangeable between KYPO CRP instances
- Conversion to other cyber ranges possible
- Utilization of widely adopted tools
- Follows infrastructure as a code principles
- High reusability of the code





#### **Our vision**

Everybody can be part of the growing community.

Open content and supporting tools are available.

Foundation governing the KYPO CRP is established.

Hands-on training platform for ECCC and ENISA.

# How to design your hands-on cybersecurity training?

May 31st, 13:00–15:00 CET Webinar

https://muni.cz/go/designcybersec







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#### Cyber security cOmpeteNCe fOr Research anD InnovAtion



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