

# OAuth AND OPENID CONNECT

Single Sign-On Security | Training | 2 days, 8 hrs. per day  

In this interactive training, you will learn the security best practices for the single sign-on systems OAuth and OpenID Connect.

## YOUR BENEFITS

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- > Understand how attackers steal tokens and the resulting risks.
- > Apply the suitable protocol variants of OAuth and OpenID Connect for optimally protecting your users.
- > Protect your single sign-on systems against unauthorized access and data theft.
- > Convince your customers with state-of-the-art security technologies such as Proof Key for Code Exchange (PKCE), mTLS and DPoP.

## TRAINING CONTENTS

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### Introduction to Single Sign-On

- > OAuth and OpenID Connect Flows
- > Code Flow/Implicit Flow/Hybrid Flow

### Generic Attacks on SSO Procedures

- > XSS, Clickjacking, CSRF, Open/Covert Redirects
- > OAuth- and OpenID Connect-specific Attacks
- > ID Token: Details and Attacks

### Single-Phase Attacks

- > ID Spoofing Attacks
- > Signature Bypasses

### Cross-Phase Attacks

- > Issuer Confusion
- > Malicious Endpoint Attacks
- > IdP Confusion / Mix-Up

### Security Best Practices

- > PKCE
- > Native Apps
- > Single-Page-Applications (SPAs)

### Secure Token Bindings

- > Mutual TLS
- > DPoP



Your contact for this training

Dr. Christian Mainka | CTO, Dept. Single Sign-On

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Christian Mainka completed his doctorate in 2017 on the topics of single sign-on and web services. As co-founder of Hackmanit, he has been working on security aspects arising from the use of data description languages such as JSON since 2009. In his dissertation, he analyzed the security of modern single sign-on methods such as OAuth and OpenID Connect and uncovered numerous security vulnerabilities.

## REFERENCES

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*"Good combination between lectures and practical tasks performed both alone, with support and live by the lecturers."*

*"The topic was well dealt with, and I was able to evaluate afterwards what is still missing in our app to make it secure. Great training!"*

*"Very nice and sympathetic lecturers, impeccably presented and explained. Very knowledgeable in the subject. Especially good, in my opinion, was that suggestions were actively addressed. This definitely added value. The topic was exciting and up-to-date..."*

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## TARGET AUDIENCE

This training is intended for everyone who wants to build and maintain secure single sign-on systems using OAuth or OpenID Connect.

This course is helpful for, among others:

- > Identity management administrators
- > Identity provider and client developers
- > Penetration testers and security researchers

To participate, you will need a computer, as well as virtualization software for working on the interactive exercises.

## BOOKING OPTIONS


Whether a fixed date, team online training or on-site training, we adapt to your wishes. Contact the person responsible for the desired training to receive an individual and non-binding offer.

Send the registration form or the individual booking request by email to Dr. Christian Mainka:

[christian.mainka@hackmanit.de](mailto:christian.mainka@hackmanit.de)

## ONLINE TRAINING 2024

### MAY

16.05. - 17.05.2024 | Thu.-Fri. | 9:00 - 17:00 

REGISTRATION DEADLINE | 02.05.2024 | Thursday

### SEPTEMBER

18.09. - 19.09.2024 | Wed.-Thu. | 9:00 - 17:00 

REGISTRATION DEADLINE | 04.09.2024 | Wednesday

|                     |                                       |
|---------------------|---------------------------------------|
| <b>Date:</b>        | Wednesday, Thursday, Friday           |
| <b>Time:</b>        | from 9:00 to 17:00                    |
| <b>Duration:</b>    | 2 days, 8 hrs. per day (incl. breaks) |
| <b>Total price:</b> | 1.290€ plus VAT (per person)          |

Note: We reserve the right to cancel the training if there are less than 5 participants. A possible cancellation will be communicated at least one week before the training date.

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REGISTRATION DEADLINE | 04.09.2024 | Wednesday

(Please check)

Number of people

Name and email

Contact for booking

Company

Address

Postal code, city

Billing address (if different)

Email

Phone

Notes

Please send your registration by email to:  
[christian.mainka@hackmanit.de](mailto:christian.mainka@hackmanit.de)