# SINGLE SIGN-ON SECURITY: SAML

Training | 2 days, 8 hrs. per day



In this interactive training, you will learn the security best practices for SAML-based single sign-on systems.

#### YOUR BENEFITS

- > Understand how attackers steal SAML tokens and the resulting risks.
- Take the right actions to protect your service and identity providers against cyber attacks.
- > Protect your SAML systems from unauthorized access and data theft.
- > Convince your customers with state-of-the-art security technologies such as Holder-of-Key (HoK).

#### TRAINING CONTENTS

#### Introduction

- > XML Parsing (DOM vs. SAX)
- > XML Schema
- > Extensible Stylesheet Language (XSLT)

#### **Document Type Definition**

- > XML (External) Entity Attacks
- > XML-specific Denial-of-Service Attacks

### SAML-based Single Sign-On

- > XML Signature
- > Web Browser SSO Profile

#### Attacks on SAML Service Provider

- > Replay Attacks
- > Signature Exclusion
- > XML Signature Wrapping (XSW)
- > Certificate Faking and Injection Attacks
- > Covert Redirect Attacks

# Attacks on SAML Identity Provider

#### **SAML Secure Bindings**

Apply the knowledge you have acquired to your own applications



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 XML since 2009. In his dissertation, he analyzed the security of modern single sign-on methods including SAML and uncovered numerous security vulnerabilities.

#### REFERENCES

"As a technical training one of the best if not the best in my career so far (10 years) ..."

"The content and overall structure and organization were really very good. Thank you very much for the guick and very good answers to the guestions. The VM and the exercises are really very well done and will help me in the follow-up to deepen what I have learned. Thank you! "

"The climate was very pleasant and you were decidedly superior to me in terms of security. The VM is awesome because of your own developments and I will certainly play with it for a while. I have taken much more with me than, for example, from training courses for certifications ..."











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#### TARGET AUDIENCE

This training is intended for people who want to build and maintain secure SAML systems.

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

## ONLINE TRAINING | SAML | OVERVIEW

from 9:00 to 17:00 Time:

2 days, 8 hrs. per day (incl. breaks) **Duration:** 

Total price: 1.290€ plus VAT (per person)









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Requested date for the Online Training	Contact for booking
	Company
Number of people	Address
Name and email	Postal code, city
	Billing address (if different)
	Email
	Phone
	Notes

Please send your registration by email to: christian.mainka@hackmanit.de











