

# SAP Cyber-Security for IT Security Practitioners

**AYA CONSEIL** provides pentest, audit and consultancy to secure your SAP landscapes



**CYBER SECURITE SAP**  
[www.aya-conseil.fr](http://www.aya-conseil.fr)

# AGENDA

2

- Training presentation
- Learning Objectives
- Course Outline
- Target Audience
- What to Bring
- Participation fee

## *Training presentation*

3

SAP is a core part of the business-critical infrastructure of 95% of the biggest companies in the world, these companies rely on SAP to perform their most sensitive daily operations such as processing employees payroll and benefits, managing logistics, managing suppliers / customers, material management, releasing payments to providers, credit cards processing, business intelligence, etc.

This training provides the latest information on SAP specific attacks and remediation / protection activities.

This training starts with an introduction to SAP (No previous SAP knowledge is required), you will learn through several hands-on exercises and demos! how to perform your own vulnerability assessments, audits and penetration tests on your SAP platform, you will be very well equipped to understand the critical risks your SAP platform may be facing, how to assess them and more importantly, you will know which are the best-practices to effectively mitigate them, pro-actively protecting your business-critical platform.

We take pride in creating the most comprehensive SAP security agenda!



## *Learning Objectives*

4

- ❑ Learn the fundamentals of the SAP Architecture
- ❑ Learn the main default misconfigurations that will allow anyone to completely compromise a vanilla SAP Installation
- ❑ Learn more about the obscure SAP proprietary protocols
- ❑ Learn about the SAP Components and how they collaborate with each other
- ❑ Learn how to attack an SAP system without causing business disruption
- ❑ Learn how to defend an SAP, preventing the most common attacks and hacking techniques

## Day 1:

- Introduction to SAP
- What SAP security used to be in the past
- What SAP security is nowadays
- Introduction to SAP security tools (the open-source way)
- Securing the SAP Infrastructure
- SAP Router
- SAP Web-dispatcher
- The role of a firewall
- How to attack and secure: SAP & Windows
- How to attack and secure: SAP & Unix
- How to attack and secure: SAP & Oracle
- How to attack and secure: SAP & HANA
- Evolution of Hana
- HANA Internals
- What is S/4HANA?
- Authentication mechanisms
- User Security
- Password Policy
- Authorizations
- SAP Gateway & RFC
- SAP Message Server
- SAP Management Console

# Course Outline

6

## Day 2:

- SAP Solution Manager
- SAP System Landscape Directory
- ABAP Security
- SAP Back-doors
- SAP Updates
- Encryption
- SAP ICM (Continued)
- SAP J2EE
- Understanding the J2EE Framework
- Different SAP Web J2EE Applications
- J2EE Authentication Mechanisms
- SAP JCO
- SAP Security Audit Trail
- How to react in case of an SAP Intrusion
- SAP Lab – Packet wars! (Game subject to time constraints!!)

# Course Outline

7

## Day 2:

- SAP Solution Manager
- SAP System Landscape Directory
- ABAP Security
- SAP Back-doors
- SAP Updates
- Encryption
- SAP ICM (Continued)
- SAP J2EE
- Understanding the J2EE Framework
- Different SAP Web J2EE Applications
- J2EE Authentication Mechanisms
- SAP JCO
- SAP Security Audit Trail
- How to react in case of an SAP Intrusion
- SAP Lab – Packet wars! (Game subject to time constraints!!)

### **Target Audience**

- ❑ Security employees, from both blue teams who wishes to learn how to protect these so-far obscure ERP system and red teams who wishes to learn how to attack this highly critical assets.
- ❑ Security Consultants who are looking to expand their IT-Security portfolio, SAP administrators / auditors who wishes to learn more about the technical aspects of SAP security.

### **Student Requirements**

- ❑ The course assumes a reasonable level of familiarity with Linux basics and eagerness to learn new things!



### **What to Bring**

Working laptop where you have enough rights to install new software, connect to a wireless network and change your own IP address

### **Software Requirements**

Everything you need will be provided by your instructor

### **Students will be provided with**

A fully working virtualized platform containing everything you will need for the training!

## ***Training fees***

10

Participation fees for this 2 day training will be provided on demand  
Please contact us for a quotation by indicating your location and number of participants.

We also organize monthly training on our training center at La Defense.  
Contact us for more information

### **Your contacts**

Hmidi Kamel  
HEAD of SAP CYBERSECURITY  
[Kamel.hmidi@aya-conseil.fr](mailto:Kamel.hmidi@aya-conseil.fr)  
+33 6 50 92 71 37

Sonia Alexi  
Sales manager  
[Sonia.alex@aya-conseil.fr](mailto:Sonia.alex@aya-conseil.fr)  
+3314784587

