

ADM960

SAP NetWeaver Application Server Security

COURSE OUTLINE

Course Version: 19

Course Duration:

SAP Copyrights, Trademarks and Disclaimers

© 2019 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. Please see <http://global12.sap.com/corporate-en/legal/copyright/index.epx> for additional trademark information and notices.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors.

National product specifications may vary.

This course may have been machine translated and may contain grammatical errors or inaccuracies.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP SE or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP SE or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platform directions and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.

Typographic Conventions

American English is the standard used in this handbook.

The following typographic conventions are also used.

This information is displayed in the instructor's presentation	
Demonstration	
Procedure	
Warning or Caution	
Hint	
Related or Additional Information	
Facilitated Discussion	
User interface control	<i>Example text</i>
Window title	<i>Example text</i>

Contents

vii **Course Overview**

1 Unit 1: Security Overview

- 1 Lesson: Evaluating Security Concepts
- 1 Lesson: Outlining the Security Roadmap
- 1 Lesson: Describing the Training Environment

3 Unit 2: NetWeaver AS Components and Communication Mechanisms

- 3 Lesson: Determining the Key Points of Network Security
- 3 Lesson: Installing and Configuring SAProuter
- 3 Lesson: Installing and Configuring SAP Web Dispatcher

5 Unit 3: NetWeaver AS Security Operations

- 5 Lesson: Explaining the Secure Store
- 5 Lesson: Explaining Secure Storage in File System
- 5 Lesson: Outlining Authorizations and Security Policies
- 5 Lesson: Managing Users in SAP Systems
- 5 Lesson: Securing the Message Server and the Internet Communication Manager (ICM)
- 6 Lesson: Securing the SAP GUI
- 6 Lesson: Monitoring SAP Systems Security
- 6 Lesson: Describing Application Lifecycle Management
- 6 Lesson: Segregating System Administration Duties
- 6 Lesson: Managing Transport Management System Users
- 6 Lesson: Monitoring Security with SAP Solution Manager

7 Unit 4: Basics of Authentication and Single Sign-On

- 7 Lesson: Discussing Authentication for SAP NetWeaver AS
- 7 Lesson: Discussing Authentication for SAP Netweaver AS Java
- 7 Lesson: Discussing Single Sign-On with Active Directory
- 7 Lesson: Discussing Single Sign-On with SAP Logon Tickets

9 Unit 5: RFC Security

- 9 Lesson: Securing the RFC Gateway
- 9 Lesson: Enabling SNC for SAP NetWeaver AS ABAP
- 9 Lesson: Reducing the Attack Surface: RFC Communication and Unified Connectivity

11 Unit 6: Secure Sockets Layer (SSL)

- 11 Lesson: Discussing SSL for SAP
- 11 Lesson: Discussing SSL for SAP Management Console
- 11 Lesson: Discussing SSL for SAP NetWeaver AS ABAP
- 11 Lesson: Discussing SSL for SAP NetWeaver AS Java

13 Unit 7: Integration B2B

- 13 Lesson: Discussing Process Integration and Orchestration
- 13 Lesson: Discussing Web Services Security in ABAP

15 Unit 8: Infrastructure

- 15 Lesson: Protecting Operative System Security
- 15 Lesson: Protecting Database Security

Course Overview

TARGET AUDIENCE

This course is intended for the following audiences:

- Technology Consultant

Lesson 1: Evaluating Security Concepts

Lesson Objectives

After completing this lesson, you will be able to:

- Evaluate computer security and major sources of threats

Lesson 2: Outlining the Security Roadmap

Lesson Objectives

After completing this lesson, you will be able to:

- Identify challenges and solutions for the implementation of infrastructure security

Lesson 3: Describing the Training Environment

Lesson Objectives

After completing this lesson, you will be able to:

- Identify and locate the different instances available

Lesson 1: Determining the Key Points of Network Security

Lesson Objectives

After completing this lesson, you will be able to:

- Determine network security for SAP systems

Lesson 2: Installing and Configuring SAProuter

Lesson Objectives

After completing this lesson, you will be able to:

- Install and configure SAProuter

Lesson 3: Installing and Configuring SAP Web Dispatcher

Lesson Objectives

After completing this lesson, you will be able to:

- Install and configure SAP Web Dispatcher

Lesson 1: Explaining the Secure Store

Lesson Objectives

After completing this lesson, you will be able to:

- Explain cryptography and the secure store

Lesson 2: Explaining Secure Storage in File System

Lesson Objectives

After completing this lesson, you will be able to:

- Explain secure storage in the file system

Lesson 3: Outlining Authorizations and Security Policies

Lesson Objectives

After completing this lesson, you will be able to:

- Outline authorizations and password policy parameters
- Outline security policy maintenance
- Work with security-relevant task lists

Lesson 4: Managing Users in SAP Systems

Lesson Objectives

After completing this lesson, you will be able to:

- Set up user security in SAP systems

Lesson 5: Securing the Message Server and the Internet Communication Manager (ICM)

Lesson Objectives

After completing this lesson, you will be able to:

- Secure the message server and the Internet Communication Manager (ICM)

Lesson 6: Securing the SAP GUI

Lesson Objectives

After completing this lesson, you will be able to:

- Secure the SAP GUI

Lesson 7: Monitoring SAP Systems Security

Lesson Objectives

After completing this lesson, you will be able to:

- Monitor security in SAP systems

Lesson 8: Describing Application Lifecycle Management

Lesson Objectives

After completing this lesson, you will be able to:

- Describe SAP Patch Day and SAP Solution Manager
- Describe the process of moving to SAP HANA-based SAP NetWeaver systems

Lesson 9: Segregating System Administration Duties

Lesson Objectives

After completing this lesson, you will be able to:

- Describe how to prevent system administrators from accessing sensitive data

Lesson 10: Managing Transport Management System Users

Lesson Objectives

After completing this lesson, you will be able to:

- Enforce non-standard passwords for the Transport Management System

Lesson 11: Monitoring Security with SAP Solution Manager

Lesson Objectives

After completing this lesson, you will be able to:

- Analyze the security monitoring capabilities of SAP Solution Manager

Lesson 1: Discussing Authentication for SAP NetWeaver AS

Lesson Objectives

After completing this lesson, you will be able to:

- Activate session security

Lesson 2: Discussing Authentication for SAP Netweaver AS Java

Lesson Objectives

After completing this lesson, you will be able to:

- Adapt the logon procedure for SAP NetWeaver Java systems
- Customize the SAP logon ticket issued by SAP NetWeaver Java systems

Lesson 3: Discussing Single Sign-On with Active Directory

Lesson Objectives

After completing this lesson, you will be able to:

- Configure an SAP Netweaver ABAP AS for Single Sign on with Active Directory

Lesson 4: Discussing Single Sign-On with SAP Logon Tickets

Lesson Objectives

After completing this lesson, you will be able to:

- Configure an SAP NetWeaver Java AS for single sign-on with SAP logon tickets

Lesson 1: Securing the RFC Gateway

Lesson Objectives

After completing this lesson, you will be able to:

- Verify SAP Gateway security
- Outline RFC callback whitelist protection

Lesson 2: Enabling SNC for SAP NetWeaver AS ABAP

Lesson Objectives

After completing this lesson, you will be able to:

- Configure SNC for SAP NetWeaver AS ABAP
- Configure SNC for other SAP components

Lesson 3: Reducing the Attack Surface: RFC Communication and Unified Connectivity

Lesson Objectives

After completing this lesson, you will be able to:

- Set up data collection for RFC enable function modules

Lesson 1: Discussing SSL for SAP

Lesson Objectives

After completing this lesson, you will be able to:

- Describe SSL for SAP

Lesson 2: Discussing SSL for SAP Management Console

Lesson Objectives

After completing this lesson, you will be able to:

- Enable SSL for the SAP Management Console

Lesson 3: Discussing SSL for SAP NetWeaver AS ABAP

Lesson Objectives

After completing this lesson, you will be able to:

- Enable SSL for SAP NetWeaver AS ABAP

Lesson 4: Discussing SSL for SAP NetWeaver AS Java

Lesson Objectives

After completing this lesson, you will be able to:

- Enable SSL for SAP NetWeaver AS Java

Lesson 1: Discussing Process Integration and Orchestration

Lesson Objectives

After completing this lesson, you will be able to:

- Discuss how to protect interface communication

Lesson 2: Discussing Web Services Security in ABAP

Lesson Objectives

After completing this lesson, you will be able to:

- Explain web services security in ABAP

Lesson 1: Protecting Operative System Security

Lesson Objectives

After completing this lesson, you will be able to:

- Protect operative system security from an infrastructure point of view

Lesson 2: Protecting Database Security

Lesson Objectives

After completing this lesson, you will be able to:

- Protect database security from an infrastructure point of view