

SOC Essentials: Investigating and Threat Hunting

Summary

This course is part of the Defense Analyst learning path and is intended for learners who want to begin or advance a career as a Security Analyst within a SOC, as well as defense engineers and Splunk Enterprise Security or Splunk SOAR administrators who provide support to these roles.

In this course you will learn and practice how to conduct investigations using Splunk Enterprise Security features through best practices shared by our security champions, as well as practice some common analyst automation tasks using Splunk SOAR. You will also learn about the PEAK Threat Hunting framework and will apply its basic concepts in hypothesis-driven and baseline threat-hunting exercises.

At the end of this course you should be able to:

- Describe SIEM best practices and basic operation concepts of Splunk Enterprise Security, including the interaction between CIM, Data Models, and acceleration, and common CIM fields that may be used in investigations
- Carry out a typical triage and investigation process using Splunk Enterprise Security
- Describe the purpose of the Asset and Identity, and Threat Intelligence frameworks in ES
- Define Splunk ES elements like Notable Event, Risk Notable, Adaptive Response Action, Risk Object, Contributing Events.
- Identify common built-in dashboards in Enterprise Security and the basic information they contain.
- Explain the use of SOAR playbooks and list the basic ways they can be triggered from Enterprise Security
- Explain the essentials of Risk-based Alerting and the Risk framework
- List the common high-level steps of threat hunting using the PEAK framework and practice some common steps of hypothesis and baseline threat hunting with Splunk.

Prerequisites

- To be successful students should have a basic understanding of common cyber technologies and concepts including:
 - OSI Model
 - Networking concepts and common security tools
 - Common Operative Systems like Windows and Linux
- The following Splunk courses are also highly recommended:
 - Intro to Splunk
 - Using fields
 - Previous courses in the Defense Analyst learning path

**Format:**
Instructor-Led

**Estimated Duration:**
9 hours

**Audience:**
SOC Analysts
Defense Engineers
Splunk Admins who support these roles

Course Outline

Module 1 – Introduction

- The CyberSecurity Defense Analyst
- CIM, Data Models and Correlation Refresh
- Lab 1: Introducing the environment

Module 2 – Splunk Enterprise Security (ES) for Analysts

- Asset & Identity Framework
- Threat Intelligence Framework
- Notable Event Framework
- Adaptive Response Framework
- Investigation Management in Splunk ES
- Lab 2: Pick up an investigation

Module 3 – Risk Analysis Framework

- Lab 3: Continue your investigation with RBA

Module 4 – Working with Splunk SOAR

- Lab 4: Splunk SOAR Practice

Module 5 – Threat Hunting Introduction

- Lab 5: Hunting with Windows Event Codes

Module 6 – Threat Hunting with PEAK: Hypothesis-based Hunt

- Lab 6: Hypothesis-based Threat Hunting Practice

Module 7 – Threat Hunting with PEAK: Baseline Hunt

- Lab 7: Baseline Threat Hunting Practice

This lab experience is using the following Splunk tools:

- *Splunk Enterprise Version: 9.1.1*
- *Enterprise Security (ES) Version: 8.1.0*
- *Splunk SOAR Version: 6.4.1*

The Cybersecurity Defense Analyst Learning Path

This course is part of a learning path that can help learners prepare for the role of a SOC Analyst and for the [Splunk Certified Cybersecurity Defense Analyst exam](#). The learning path includes the following courses:

1. The Cybersecurity Landscape
2. Understanding Threats and Attacks
3. Security Operations and the Defense Analyst
4. Data and tools for Defense
5. The Art of Investigation
6. SOC Essentials: Investigating with Splunk (*content covered in this course*)
7. SOC Essentials: Introduction to Threat Hunting (*content covered in this course*)

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