

Network Security Monitoring and SIEM Implementation

Barcelona (Spain)

4 - 8 January 2027

UK Training

PARTNER



Network Security Monitoring and SIEM Implementation

Code: IT32 From: 4 - 8 January 2027 City: Barcelona (Spain) Fees: 5900 Pound

Introduction

In today's digital era, cyber threats have become more sophisticated, persistent, and damaging. Protecting organizational infrastructure now requires not just reactive defense mechanisms but proactive visibility and intelligent monitoring.

The Network Security Monitoring and SIEM Implementation course equips participants with the knowledge and skills to design, deploy, and manage effective network monitoring systems combined with Security Information and Event Management SIEM solutions.

This course bridges theoretical understanding and practical application. Participants will learn how to analyze network data, detect anomalies, and build a centralized monitoring environment capable of identifying, classifying, and responding to potential security incidents in real time.

Course Objectives

By the end of this course, participants will be able to:

- Understand the principles and components of network security monitoring.
- Implement SIEM solutions for event correlation and incident detection.
- Collect and analyze logs from multiple network sources.
- Identify suspicious network activities and potential cyber threats.
- Build and operate a Security Operations Center SOC environment.
- Develop incident response procedures and threat mitigation strategies.
- Integrate monitoring solutions with existing security frameworks.
- Enhance overall resilience against evolving cyberattacks.

Course Outlines

Day 1: Fundamentals of Network Security Monitoring

- Overview of network monitoring and its importance in cybersecurity.
- Types of cyber threats targeting network infrastructures.
- Core components and tools of network monitoring systems.
- Data collection and traffic analysis methods.
- Understanding patterns of normal versus abnormal network behavior.
- Practical exercise: basic traffic capture and anomaly detection.

Day 2: Introduction to SIEM Systems and Log Management

- Understanding the concept and architecture of SIEM systems.
- How to aggregate and normalize data from diverse network sources.



- Log collection, parsing, and correlation techniques.
- Identifying key indicators of compromise IoCs.
- Configuring alerts and automated incident detection rules.
- Lab: real-time monitoring using a sample SIEM dashboard.

Day 3: Building an Effective Security Monitoring Environment

- Designing and implementing a centralized monitoring system.
- Mapping data flows and identifying critical monitoring points.
- Choosing and configuring appropriate monitoring tools.
- Developing visualization dashboards for threat visibility.
- Generating analytical reports for management and audit purposes.
- Workshop: designing a security monitoring architecture for an enterprise.

Day 4: Incident Response and Advanced Threat Analysis

- Understanding the incident response lifecycle.
- Conducting detailed forensic analysis using SIEM data.
- Tracing attack sources and reconstructing event timelines.
- Applying behavioral analytics for user and system activity tracking.
- Developing and executing rapid response plans.
- Exercise: simulating a cyberattack and responding through SIEM tools.

Day 5: Integration, Evaluation, and Continuous Improvement

- Integrating SIEM with other security technologies firewalls, IDS, endpoint tools.
- Developing performance metrics to measure monitoring effectiveness.
- Reviewing system logs and identifying configuration gaps.
- Automating incident response and reporting workflows.
- Best practices for maintaining SIEM efficiency and scalability.
- Final project: building a complete security monitoring and response plan.

Why Attend this Course: Wins & Losses!

- Gain a comprehensive understanding of modern network monitoring principles.
- Develop the ability to implement and manage SIEM platforms effectively.
- Learn to detect, analyze, and respond to cyber threats in real time.
- Improve organizational readiness for complex and evolving attacks.
- Strengthen data protection, compliance, and reporting capabilities.
- Build a robust foundation for establishing or enhancing a SOC.
- Integrate monitoring tools seamlessly within enterprise infrastructures.
- Acquire actionable insights applicable to real-world cybersecurity challenges.

Conclusion

Network Security Monitoring and SIEM Implementation is a critical area of expertise for any organization aiming to maintain strong cybersecurity posture.





It goes beyond basic defense – focusing on proactive detection, rapid response, and intelligent analysis of network activity.

Through this course, participants will gain practical experience in building and operating advanced monitoring systems that enhance threat visibility, reduce incident response time, and ensure the continuous protection of digital assets.

Head Office: +44 7480 775 526
Email: Sales@blackbird-training.com
Website: www.blackbird-training.com

UK Training
PARTNER



Blackbird Training Clients



MANNAI Trading
Company WLL,
Qatar



Alumina Corporation
Guinea



Booking.com
Netherlands



Oxfam GB International
Organization,
Yemen



Capital Markets
Authority,
Kuwait



Waltersmith Petroman Oil Limited
Nigeria



Qatar National Bank
(QNB),
Qatar



Qatar Foundation,
Qatar



AFRICAN UNION ADVISORY
BOARD ON CORRUPTION,
Tanzania



KFAS
Kuwait



Reserve Bank of
Malawi,
Malawi



Central Bank of Nigeria
Nigeria



Ministry of Interior
Kingdom of Saudi Arabia
KSA



Mabruk Oil Company
Libya



Saudi Electricity
Company,
KSA



BADAN PENGELOLA
KEUANGAN Haji,
Indonesia



NATO
Italy



ENI CORPORATE
UNIVERSITY,
Italy



Gulf Bank
Kuwait



المؤسسة العامة للتأمينات الاجتماعية
General Organization for
Social Insurance
KSA



Defence Space Administration
Nigeria



National Industries
Group (Holding),
Kuwait



Hamad Medical
Corporation,
Qatar



USAID
Pakistan



STC Solutions,
KSA



North Oil company,



EKO Electricity



Oman Broadband



UNITED NATIONS
UN.



هيئة تنظيم الكهرباء - عمان
AUTHORITY FOR ELECTRICITY REGULATION, OMAN
Authority for

UK Training
PARTNER



Blackbird Training Categories

Management & Admin

Entertainment & Leisure
Professional Skills
Finance, Accounting, Budgeting
Media & Public Relations
Project Management
Human Resources
Audit & Quality Assurance
Marketing, Sales, Customer Service
Secretary & Admin
Supply Chain & Logistics
Management & Leadership
Agile and Elevation

Technical Courses

Artificial Intelligence (AI)
Sustainability, ESG & Corporate Responsibility
Advanced Courses
Hospital Management
Public Sector
Special Workshops
Oil & Gas Engineering
Telecom Engineering
IT & IT Engineering
Health & Safety
Law and Contract Management
Customs & Safety
Aviation
C-Suite Training

