

Blue River Experts

Member of the Art of Innovation Network

ACHIEVING SECURITY RESILIENCE USING CISCO PRODUCTS AND SOLUTIONS

Version 2.15

1 Course Overview

During this course, attendees will gain a solid understanding of Cyber Security principles, domains, and management. Attendees will learn about user and device security, network and cloud security, application and data security and the important area of detection and response. They will learn how Cisco's products and solutions map to these areas. Attendees will also learn about the functionality and use cases of all major Cisco security products and solutions.

This course can be delivered in various levels of detail and therefore is applicable to a broad audience. We can deliver a 1-day or a 2-day version depending on the desired level of detail and the target audience.

Please note that this course is delivered by senior consulting engineers who have many years of experience in networking, IT and Cyber Security.

2 Who Should Attend

This course is intended for professionals like:

- Account Managers
- Pre/Post Sales Engineers
- Solution Designers
- Staff of End User IT / Security Departments

3 Prerequisites

There are no formal pre-requisites, but it would be beneficial if attendees would have a good general understanding of networking and IT systems.

4 Why Attend a Blue River Experts Course

Our courses are not delivered by instructors but by consulting system engineers who have vast experience regarding real life design, deployment, and troubleshooting of actual customer installations. Besides delivering courses, our engineers usually design and deploy large enterprise solutions or perform real world POVs (proof of value) and POCs (proof of concept) for large customers. We are often requested and contracted by product vendors to help customers make buying decisions based on their particular use case. This allows us to discuss real world use cases, designs, and operational situations with our students.

If you would like to get educated by experts who will explain to you the whole life cycle from day 0 to day 2 as they have comprehensive knowledge from having written numerous business requirements documents, customer requirements documents, high level design and detailed design documents and having deployed and troubleshooted many customer installations then you should choose to attend one of our courses.

5 Course Objectives

After completing this course, attendees will be able to:

- Understand and explain Cyber Security principles and domains
- Understand and explain a comprehensive Cyber Security architecture
- Map Cisco products to such a comprehensive Cyber Security architecture
- Understand and explain the functionality, use cases and benefits of major Cisco security products and solution

6 Course Details

6.1 Principles of Information Security

- 6.1.1 Key Concepts
- 6.1.2 Risk Management in Information Security
- 6.1.3 Security Policies, Standards and Frameworks
- 6.1.4 Cyber Security Governance and Compliance

6.2 Cyber Threats and Vulnerabilities

- 6.2.1 Types of Cyber Threats
- 6.2.2 Common Vulnerabilities
- 6.2.3 The Impact of Cyber Security Incidents
- 6.2.4 Mitigating Threats and Vulnerabilities

6.3 Security Domains

6.3.1 User and Device Security

- Types of Endpoints, Endpoint Vulnerabilities
- Endpoint Protection Technologies
- Endpoint Security Management
- Mobile Device Security
- Data Protection and Encryption
- Securing IoT Devices
- Advanced Measures

6.3.2 Network Security

- Threats to Network Security
- Perimeter Based Security vs Zero Trust
- Network Security Technologies
- Next Generation Firewalls
- Securing Wireless Networks
- Zero Trust Architecture and Deployment
- Secure Access Service Edge (SASE)
- Network Monitoring and Management

6.3.3 Cloud Security

- The Shared Responsibility Model
- Cloud Security Architectures
- Zero Trust and Identity Access Management
- Virtual Firewalls, Web Application Firewalls
- Secure Access Service Edge (SASE)
- Security Operations in Cloud Environments

6.3.4 Application and Web Security

- Introduction to Application Security
- Fundamental Principles
- Understanding Web Application Architectures
- Common Vulnerabilities
- Securing Web Applications
- Mobile Application Security
- Application Security Testing
- Secure Development Life Cycle (SDLC)
- Application Security Frameworks

6.4 Identify and Access Management

6.4.1 Fundamentals of Identity Management

6.4.2 Least Privileged Access

6.4.3 Access Management

6.4.4 Implementing IAM Solutions

6.4.5 IAM Policies and Governance

6.5 Cyber Security Operations

6.5.1 Attack Surface Management

6.5.2 The Security Operations Center

6.5.3 Threat Intelligence

6.5.4 Incident Handling and Response

6.5.5 Security Monitoring and Event Management

6.5.6 Network Security Operations

6.5.7 Cloud Security Operations

6.5.8 Cyber Security Automation and Orchestration

6.6 Artificial Intelligence and Cyber Security

6.6.1 Introduction to Artificial Intelligence

6.6.2 Intersection of AI and Cyber Security

6.6.3 AI in Cyber Defense

6.6.4 AI in Cyber Attacks

6.6.5 Conclusions and Recommendations

6.7 Cisco Security Reference Architecture

- 6.7.1 Threat Intelligence
- 6.7.2 Extended Detection and Response
- 6.7.3 Zero Trust
- 6.7.4 SASE
- 6.7.5 User / Device Security
- 6.7.6 Cloud Edge Network
- 6.7.7 On Premises Network
- 6.7.8 Workload, Application, and Data

6.8 Mapping Cisco Products and Solutions

- 6.8.1 User and Device Security
- 6.8.2 Network and Cloud Security
- 6.8.3 Application and Data Security
- 6.8.4 Detection and Response

6.9 Functionality and Use Cases of major components

- 6.9.1 Talos Threat Intelligence
- 6.9.2 XDR Security Operations
- 6.9.3 Secure Endpoint
- 6.9.4 Secure Access / Secure Service Edge
- 6.9.5 Umbrella
- 6.9.6 Cisco Duo
- 6.9.7 Secure Firewall
- 6.9.8 Identity Services Engine
- 6.9.9 Secure Analytics (Network / Cloud)
- 6.9.10 Secure Email
- 6.9.11 Secure Workload
- 6.9.12 Secure Application
- 6.9.13 Cloud Application Security
- 6.9.14 Secure Malware Analytics
- 6.9.15 Internet & Cloud Intelligence

6.10 Achieving Security Resilience

- 6.10.1 What is Security Resilience
- 6.10.2 Success Factors for Security Resilience
- 6.10.3 Using Cisco Products and Solutions
 - Maximizing Zero Trust Adoption
 - Extending Detection and Response Capabilities
 - Taking Security to the Edge