

Designing Cisco Security Infrastructure (SDSI)

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In this Designing Cisco Security Infrastructure course provides a comprehensive introduction to designing, implementing, and evolving security architectures that protect modern enterprise and cloud-based environments. The curriculum begins by defining the purpose of security architecture and examining the core components of security infrastructure, including network, host, application, and management layers. Learners explore foundational security design principles, industry-standard frameworks, and compliance and regulatory considerations, gaining the ability to align technical security controls with organizational risk, governance, and operational requirements.

The course then transitions into practical security approaches used to defend against today's threat landscape. Topics include network access security, VPN and tunneling technologies, secure control and management planes, next-generation firewalls, web application firewalls, IDS/IPS deployments, host-based and distributed firewalls, and security solutions driven by application and flow telemetry. Learners also examine security architectures for cloud-native applications, microservices, and containerized environments, along with emerging technologies that address evolving application-layer threats.

The final portion of the course focuses on operational security and continuous improvement. Students learn how SOC tools support incident detection, handling, and response, and how security architectures must adapt based on incident findings and risk analysis. DevSecOps integration, secure automation pipelines, and infrastructure-as-code security practices are covered to demonstrate how security can be embedded throughout the development lifecycle. The course concludes with an exploration of AI's growing role in securing infrastructure, enhancing threat detection, accelerating response, and improving architectural decision-making in complex environments.

How you'll benefit

This class will help you:

- Gain hands-on experience of security architecture design
- Qualify for professional and expert-level security job roles
- Prepare for the 300-745 SDSI v1.0 exam
- Earn 41 CE credits toward recertification

Why Attend with Current Technologies CLC

- Our Instructors are in the top 10% rated by Cisco
- Our Lab has a dedicated 1 Gig Fiber Connection for our Labs
- Our Labs run up to Date Code for all our courses

Course Duration

5 days

Course Price

\$4,400.00 or 44 CLCs

Methods of Delivery

- Instructor Led
- Virtual ILT
- On-Site

Who Should Attend

The primary audience for this course is as follows:

- Cisco and Partner's Systems Engineers
- Customer Network & Infrastructure Engineers
- Customer Security/NOC Engineers

Prerequisites

There are no prerequisites for this training. However, the knowledge and skills you are recommended to have before attending this training are:

- Cisco CCNP Security or equivalent knowledge
- Familiarity with Microsoft Windows Operating Systems
- Familiarity with the Cisco Security portfolio

OUTLINE

Module 1: Definition and Purpose of Security Architecture

Module 2: Components of Security Infrastructure

Module 3: Security Design Principles

Module 4: Security and Design Frameworks

Module 5: Compliance and Regulatory Requirements

Module 6: Security Approaches to Protect Against Threats

Module 7: Modify the Security Architecture to Meet Technical Requirements

Module 8: Network Access Security

Module 9: VPN and Tunneling Solutions

Module 10: Secure Infrastructure Management and Control Planes

Module 11: Nextgen Firewalls

Module 12: Web Application Firewall (WAF)

Module 13: IPS/IDS Deployment

Module 14: Host-Based Firewalls and Distributed Firewalls

Module 15: Security Solutions Based on Application and Flow Data

Module 16: Security for Cloud-Native Applications, Microservices, and Containers

Module 17: Emerging Technologies in Application Security

Module 18: SOC Tools for Incident Handling and Response

Module 19: Modify Design to Mitigate Risk

Module 20: Incident-Driven Security Adjustments

Module 21: DevSecOps Integration

Module 22: Secure Automated Workflows and Pipelines

Module 23: AI's Role in Securing Infrastructure

LAB OUTLINE

There are no labs associated with this training.