



CCIE Security Version 5 Advanced Technologies Class



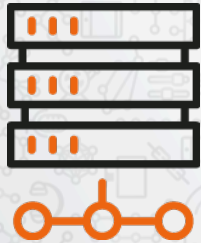
IOS Firewall Course Overview

Which topics will be covered?

What preparation resources to use?

Course Prerequisites

- ▶ Working knowledge of routing and switching technologies
- ▶ Basic knowledge of Security technologies



IOS Firewall Covered Topics

▶ Router Planes

- Control Plane, Management Plane, Data Plane, Services Plane

▶ IPv4 and IPv6 Access Control Lists

- Standard, Extended, Time-Based, Lock-and-Key, Reflexive

▶ IPv4 and IPv6 Address Spoofing

- RFC's and uRPF

IOS Firewall Covered Topics

▶ DoS Protection

- ICMP Attacks, SYN Attacks, Fragmentation Attacks, Policy Routing, TCP Intercept

▶ IPv4 and IPv6 Zone Based Policy Firewall

- Routed and Transparent Modes
- Application Inspection
- High Availability

IOS Firewall Covered Topics

▷ NAT and NAPT

- Domain-Based and Domain-less
- NAT44, NAT66, NAT-PT and NAT64/NAT46

▷ IPv4 and IPv6 Routing Protocol Security

- RIP, OSPFv2, OSPFv3, EIGRP, BGP
- BGP RTBH

IOS Firewall Covered Topics

▶ Control Plane Security

- Device Hardening, CPU/Memory/File System Protection, SPD
- Local Policy Routing
- Control Plane Policing and Control Plane Protection

▶ Management Plane Security

- Management Plane Protection, SSH, VTY Lines, Banners

How About Other Topics?

▶ Topics covered in the Infrastructure Security course

- NTP
- SYSLOG
- RMON
- SNMP
- NETFLOW

IOS Firewall Preparation Resources

▷ Books

- [Cisco Firewalls](#)
- [Cisco Router Firewall Security](#)
- [Router Security Strategies: Securing IP Network Traffic Planes](#)

▷ RFC's

▷ Cisco Live Presentations

- <https://www.ciscolive.com/online/connect/search.ww?cid=Global>

IOS Firewall Preparation Resources

▶ Cisco Configuration Guides/Examples (IOS and IOS-XE)

- <http://www.cisco.com/c/en/us/support/ios-nx-os-software/ios-15-5m-t/tsd-products-support-series-home.html>
- <http://www.cisco.com/c/en/us/support/ios-nx-os-software/ios-xe-3s/tsd-products-support-series-home.html>

▶ Cisco ZBFW Design and Application Guide

- <http://www.cisco.com/c/en/us/support/docs/security/ios-firewall/98628-zone-design-guide.html>



Knowledge is Power!