

Fortinet NSE 4 - FortiOS 7.x

This intermediate NSE 4 training prepares learners to take the Fortinet NSE 4 - FortiOS exam, which is the one required exam to earn the Fortinet NSE 4 certification. This NSE 4 Fortinet course dives deeper into FortiGate device configuration. Fortinet NSE 4 exam prep will prepare you with the specialized knowledge necessary to maintain and configure FortiGate devices.

[CBT Nuggets course material](#) →

WEEK 1

Build a Fortinet FW Lab using Eve-NG

151 min.

Intro to Building a Lab in Eve-NG	1
Eve-NG Lab Overview	6
FortiGate Lab Topology Design Eve-NG	8
Training Eve-NG to use FortiGate Images	3
Building the LAB topology in Eve-NG	7
Initial Boot of a FortiGate VM	9
Configure LAB NAT-PAT	8
Testing LAB FW to Internet Connectivity	4

Build a Fortinet FW Lab using VMware Workstation

Overview	1
Intro to Building a FortiGate Lab in VMware Workstation	1
VMware Workstation Lab Overview	4
FortiGate Lab Topology Design VMware Workstation	6
Prepare the Networking in VMware Workstation	8
Adding FW VMs to the Lab Topology	8
Bootstrapping the FW VMs	14
Testing LAB PC to Internet Connectivity	10

Build a Fortinet FW Lab using VMware ESXi

Overview	1
Intro to Building a Lab in VMware ESXi	1
VMware ESXi Lab Overview	5
Lab Topology Design	5
Prepare the Networking in VMware ESXi	8
Adding FW VMs to the Lab Topology	8
Bootstrapping the FW VMs in VMware ESXi	6

VyOS Router Configuration	5
Testing LAB PC to Internet Connectivity	6

FortiGate FW Network Fundamentals

Overview	1
Intro to FortiGate Network Fundamentals	1
Overview of FortiGate Network Fundamentals	3

WEEK 2

154 min.

Bootstrap Using the CLI	4
Initial GUI access	4
Data Plane Interfaces	5
Adding a Default Route	7
Verify the Data Plane	11
Initial Config for Remaining Firewalls	18

FortiGate FW IP Routing Fundamentals

Overview	1
Intro to FortiGate IP Routing	1
Overview of Learning Routes	7
Directly Connected Networks	8
Static Routes	7
FortiGate and RIP	12
FortiGate and OSPF	19
FortiGate and BGP	14

FortiGate FW DHCP Services

Overview	1
----------	---

Intro to FortiGate DHCP Services	1
DHCP Overview	9
FortiGate DHCP Server Config	5
Verifying DHCP	7
DHCP Reservations	5
FortiGate as a DHCP Client	6

WEEK 3

159 min.

DHCP Relay	15
------------	----

FortiGate FW Address Translation

Overview	1
Intro to IPv4 Address Translation	1
NAT and PAT Overview	13
Design for Source PAT	4
Source PAT Using the Security Policy	15
Source PAT Using Central SNAT	7
1 to 1 Mappings for Source NAT	7
Destination NAT-PAT Overview	3
Implementing DNAT in Local Policy	7
Implement DNAT with Central NAT	8

FortiGate Virtual Networking and Trunking

Overview	1
Intro to Integration with Trunking	1
Trunking Overview	9
Trunking and VLAN Interface Design	9
Hypervisor Trunking and Switching	6

FW VLAN Interfaces	7
Placing the Router Interface	3
Connecting Client VMs to new VLAN Port Groups	4
Troubleshooting	6

Physical FortiGate Integration with VMs

Overview	1
Intro to Physical and Virtual Integration	1
Physical and Virtual Trunking and VLAN Interfaces.	2
Virtual and Physical Components	10
Bootstrapping a Physical FortiGate	6
Configure VLAN Interfaces	9

WEEK 4

153 min.

Configure a Default Route	4
Configure Source NAT	6
Configure a Security Policy	6

FortiGate FW Security Policy Fundamentals

Overview	1
Intro to Security Policies	1
Firewall & Security Policy Overview	16
Options for Source (Profile-based NGFW Mode)	13
Policy Options for Destination	10
Time Based Policies	4
Matching on Service	2
NGFW Mode Policy Based	4
Working with Policies	8

FortiGate Outbound SSL-TLS Decryption

Overview	1
Intro to Outbound TLS-SSL Decryption	2
SSL-TLS Decryption Overview	10
Design for Outbound SSL-TLS Decryption	4
CSR on the FortiGate	9
SSL Inspection Profile	3
Include Profile in Firewall Policy	13
Exceptions for SSL Decryption	10

FortiGate Inbound SSL-TLS Decryption

Overview	1
Intro to Inbound SSL-TLS Decryption	1
Inbound Decryption Overview	6
Configure the VIP	4
Configure Firewall Policy	11

WEEK 5

157 min.

Adding a Trusted CA	9
Extract the Cert and Keys from Server	8
Create the SSL Inspection Profile new	1
Add Profile to Firewall Policy	7

FortiGate Web Filtering

Overview	1
Intro to FortiGate Web Filtering	1
Web Filtering Overview	5
Game Plan for Web Filtering	4
Static URL Filter	7

Category Filtering	4
Web Rating Overrides	5
Web Filtering Authentication	4
Web Profile Overrides	7
Usage Quotas	10

FortiGate DNS Filtering

Overview	1
Intro to FortiGate DNS Filtering	1
DNS Filtering Overview	4
Botnet C&C Domain Blocking	10
Enforcing Safe Search	4
Category Based DNS Filters	5
Local Static Domain Filter	4
External IP Block Lists	9
DNS Translation	5
DNS over TLS (DoT) Inspection	10

FortiGate Application Control

Overview	1
Intro to FortiGate Application Control	1
Application Control Overview	5
Application Control Signatures and License	3
NGFW mode Profile-based Application Control	11
Profile-Based App Overrides	7

Profile-Based Filter Overrides	10
--------------------------------	----

NGFW mode Policy-based Application Control	13
Policy-based Application Groups	9

FortiGate Antivirus

Overview	1
Intro to FortiGate Antivirus	1
Antivirus Overview	5
Licensing and Updates	5
Create an AntiVirus Profile	4
Apply the Antivirus Profile	15
Antivirus Profiles Without Deep SSL Inspection	7
External Malware Block Lists	12

FortiGate Intrusion Prevention

Overview	1
Intro to FortiGate Intrusion Prevention	1
IPS and IDS Overview	7
IPS Blocking for Malicious URLs	9
IPS Blocking to C&C IPs	4
Filtering IPS Signatures	5
IPS for Hosted Servers	7
Customizing IPS Signatures	12
Hold Time for New Signatures	5
Web Application Firewall	8

FortiGate DoS Prevention

Overview	1
Intro to FortiGate DoS Protection	1
DoS Protection Overview	10

WEEK 7**152 min.**

ICMP Flood DoS Policy	15
Quarantine with DoS Policies	7
TCP Syn-Flood DoS Policy	8
Port Scan DoS Policy	8
RPF Checking	9
DoS Policy Unplugged	2

FortiGate VPNs

Overview	1
Intro to FortiGate VPNs	1
VPN Overview	10
Site to Site IPsec VPN Design	5
Implement IPsec Site to Site VPN	12
SSL Remote Access Web Mode Design	4
Implement SSL Web Mode	9
SSL Remote Access Tunnel Mode Design	3
Implement SSL Tunnel Mode	9
IPsec Remote Access	7

FortiGate Virtual Domains (VDOMs)

Overview	1
Intro to FortiGate Virtual Domains (VDOMs)	1
Virtual Domains (VDOMs) Overview	6
Create a new VDOM	7
Create per-VDOM Admins	6
Allocate Interfaces to a VDOM	2
Configure VDOM Interfaces	9
Configure VDOM Routing	8

WEEK 8**158 min.**

VDOM NAT and Firewall Policies	5
VDOM Resources	5
VDOM Links	9
VDOM Mgmt. Interface	5

FortiGate Transparent Mode

Overview	1
Intro to FortiGate Transparent Mode	1
L2, L3, and the FortiGate	21
Game Plan for Transparent Mode	7
Creating a Transparent VDOM	18
Create a L2 Virtual Wire	8

FortiGate High Availability

Overview	1
Intro to FortiGate High Availability (HA)	1
High Availability (HA) Overview	10
HA Design	6
Enable Active/Standby HA	8
Adding a Second FW to HA	8
Verifying HA	5
Link Monitoring	5
Adding a Third FW to HA	6
Active/Active HA	8

FortiGate User Authentication

Overview	1
Intro to Authentication	1

Authentication Overview	6
Local Users and Groups	9

WEEK 9

155 min.

Adding an LDAP Server	9
LDAP Groups	8
Passive Authentication with Fortinet Single Sign On (FSSO)	9
FSSO Based Groups	11

FortiGate Admin Authentication and 2FA

Overview	1
Intro to Admin Authentication and 2FA	1
Admin Authentication and 2FA Overview	4
Local Admin Authentication	7
Remote Server Admin Authentication	8
Multi-Factor Authentication Overview	7
Configuring FortiToken	6
Testing FortiToken	6
Reclaiming FortiTokens	6

FortiGate Security Fabric Fundamentals

Overview	1
Intro to Security Fabric on the FortiGate	1
Security Fabric Overview	9
Design for Security Fabric	5
Enable Security Fabric on 1st FW	8
Adding a 2nd Firewall to the Fabric	5
Adding a Pre-authorized Firewall	5

Topology Views and Security Scores	19
------------------------------------	----

FortiGate SD-WAN Fundamentals

Overview	1
Intro to FortiGate SD-WAN Fundamentals	1
SD-WAN Overview	9
SD-WAN Lab Design	5

WEEK 10

103 min.

Preparing L3 Interfaces for SD-WAN	6
Create an SD-WAN Zone with Members	3
Configure the Default Route	4
NAT and Firewall Policy	7
SD-WAN Rules	11
Performance SLAs	13

Troubleshooting FortiGate Firewalls

Overview	1
Intro to Troubleshooting FortiGate Firewalls	1
Troubleshooting Overview	8
CLI, Logs, and Other Tools	12
Scenario 1: Client to Internet Connectivity	13
Scenario 2: Subnet to Subnet Connectivity	22