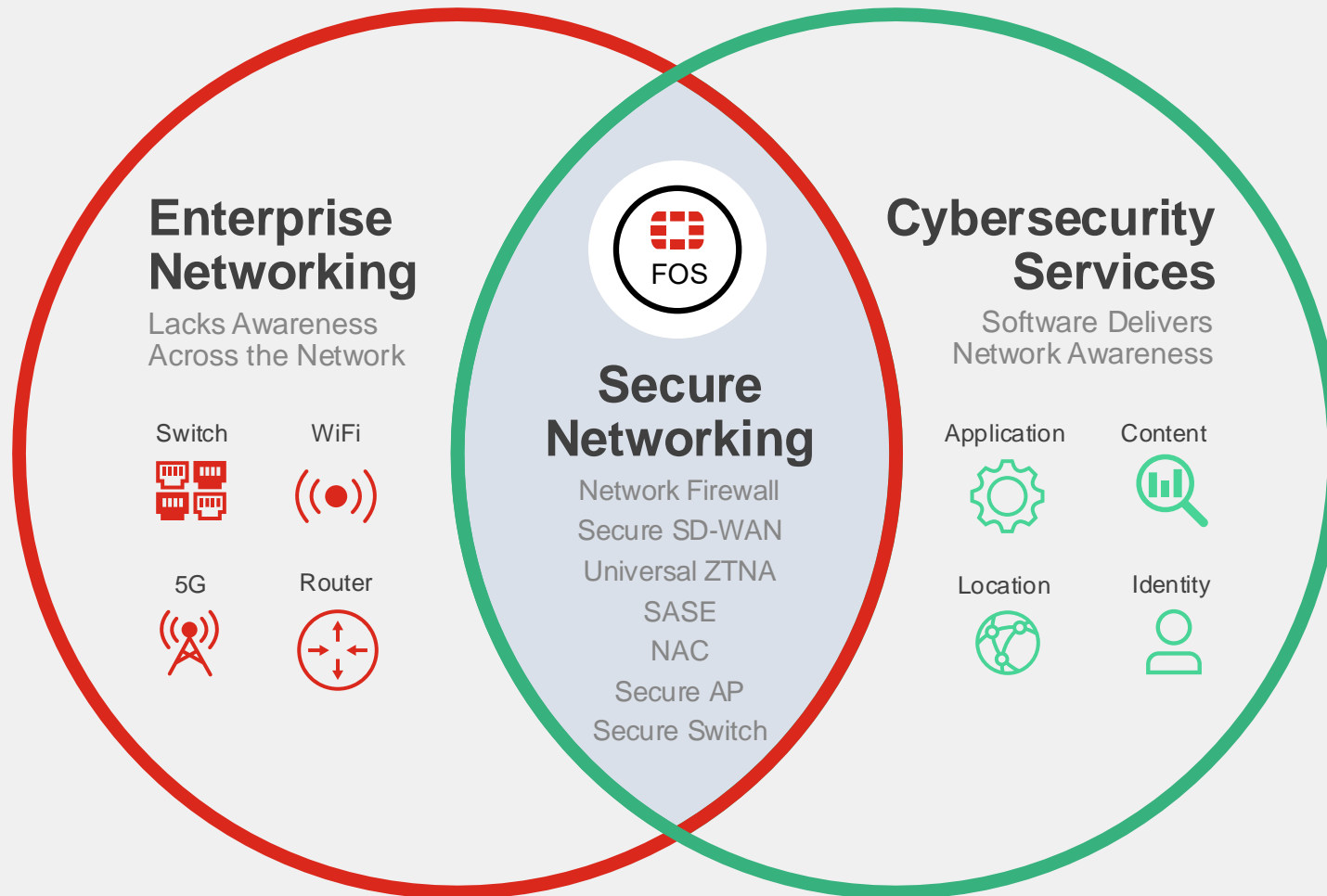# FORTINET®

Jak vydělávat na službách kyberbezpečnosti

Václav Molík

Major Account Manager – Telco/ISP

Konvergence síťové a bezpečnostní infrastruktury

Jeden FortiOS

Enterprise Networking

Lacks Awareness Across the Network

Switch

WiFi

5G

Router

Secure Networking

Network Firewall
Secure SD-WAN
Universal ZTNA
SASE
NAC
Secure AP
Secure Switch

Cybersecurity Services

Software Delivers Network Awareness

Application

Content

Location

Identity

Výhody konvergence

- Je to jednodušší – eliminuje se mnoho produktů

- Efektivní řízení pomocí jedné konzole

- End-to-end měření digitální zkušenosti

- Úspora z důvodu redukce počtu výroců

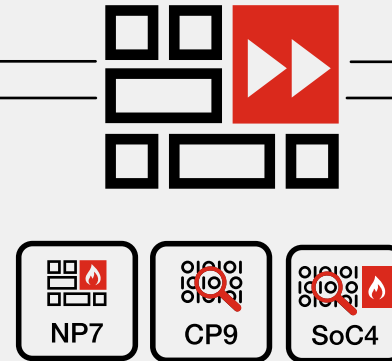# Typická nasazení Fortigate v prostředí ISP

Prevent Internal and External Threats across all network edges

Internet CPE

Entry-level modely FortiGate jako CPE na internet přípojce, rozšiřitelné na NGFW, SDWAN nebo pro bezpečný vzdálený přístup

Sdílený virtuální FW

Zákazník využívá VDOM (virtuální doménu v rámci HW zařízení) jako dedikovaný NGFW

Z jednoho DC obsloužím mnoho business zákazníků

Součást infrastruktury ISP

Perimeter FW

Segmentační FW

NAT, zdroj NetFlow

Bezpečný internet

ISP "vyčistí" provoz z Internetu

Bezpečnostní profily pro různé skupiny zákazníků.

NP7   CP9   SoC4

FortiGate Product Offering

	Entry Level	Mid-Range		High-End	Ultra High-End	Virtual Appliances
Mobile Security						
Hyperscale *					**6000-7000 Series**	
Network Segmentation				**1000-4000 Series**		**FG-VM**
IPS			**400-900 Series**			
Secure SD-WAN		**100-200 Series**				
NGFW						
Universal ZTNA	**30-90 Series**					
Threat Protection	0.6 – 2.2 Gbps	1 – 3 Gbps	5 Gbps – 20 Gbps	13 – 75 Gbps	60 Gbps – 520 Gbps	H/W Dependent

* For applicable models

Internet CPE a další cesta

Konvergence síťové a bezpečnostní infrastruktury

WLAN, LAN, SD-WAN, ZTNA, SASE a network firewall

úspora při použití jednoho universálního zařízení

DEM   NoC   AIOps

0 CPE Router — Be ready to expand

1 Firewall — Control points across the infrastructure

2 SD-WAN — Optimize application experience

3 SD-Branch — Secure your premise

4 ZTNA — Secure remote users

5 SASE — Apply zero trust to all applications
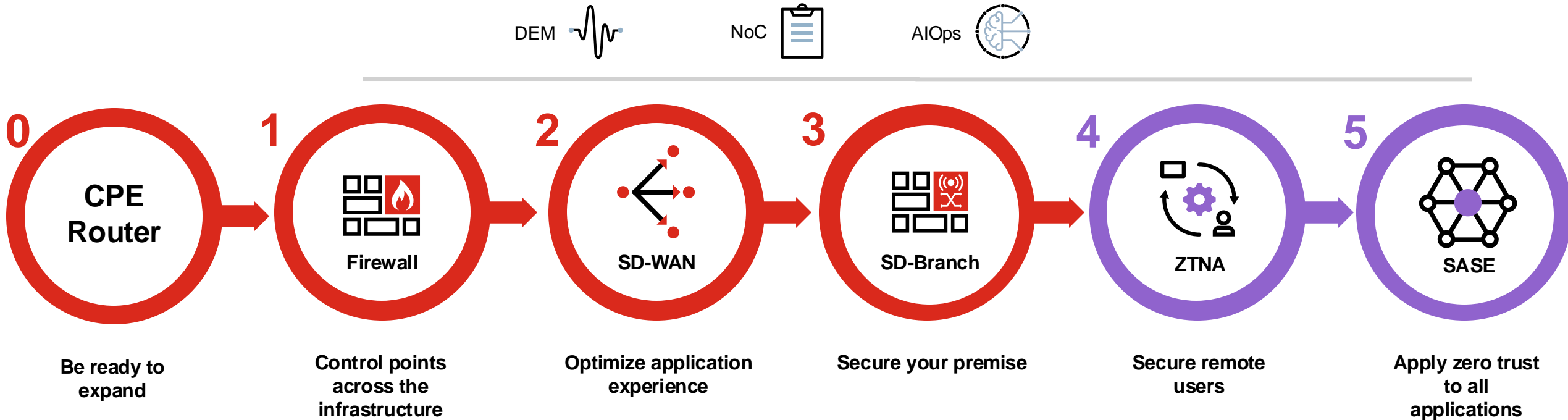
RouterBoard 1100x4 vs. FortiGate/FortiWiFi 30G
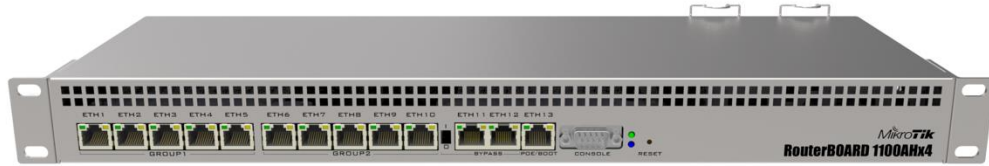
Koncová cena **329** USD
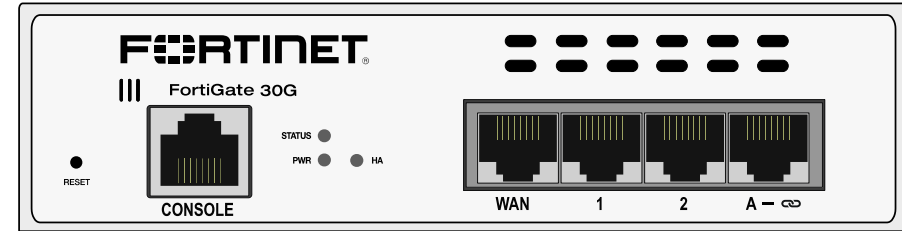
Koncová cena **427** USD

0,3-7,3 Gbps	Routing	----	IPv4 and IPv6 FW Throughput	4 Gbps
456 Mbps	IPsec VPN Throughput (512 byte), AES256-SHA256			3.5 Gbps
N/A	Threat protection throughput			500 Mbps
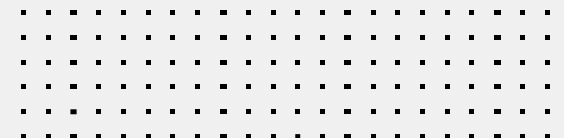
FortiGate/FortiWiFi 30G
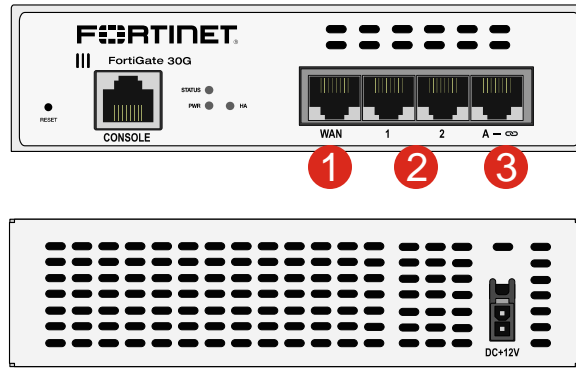
① 1 x GE RJ45 WAN Port
② 2 x GE RJ45 Ports
③ 1 x GE RJ45 FortiLink Port

■ SoC4   ■ TPM

◣ Desktop   ● GE   📶 a/b/g/n/ac-W2/ax

4 Gbps
Firewall throughput

30,000
New Sessions/Sec

600,000
Concurrent Sessions

400 Mbps
SSL Inspection Throughput

800 Mbps
IPS Throughput

570 Mbps
NGFW Throughput

500 Mbps
Threat Protection Throughput

Small Business / Remote Office
NGFW / Secure SD-WAN

500   16   8

FortiGate Entry Level Series: Comparison

	FG-30G	FG-40F	FG-50G	FG-60F	FG-70F	FG-80F	FG-90G
Firewall (1518/512/64 byte UDP)	4/ 4/ 3.9 Gbps	5 / 5 / 5 Gbps	5 / 5 / 4 Gbps	10 / 10 / 6 Gbps	10 / 10 / 6 Gbps	10 / 10 / 7 Gbps	28 / 28 / 27.9 Gbps
Concurrent Sessions	600,000	700,000	720,000	700,000	1.5 Mil	1.5 Mil	3 Mil
New Sessions/Sec	30,000	35,000	85,000	35,000	35,000	45,000	124,000
IPSec VPN	3.5 Gbps	4.4 Gbps	4.5 Gbps	6.5 Gbps	6.1 Gbps	6.5 Gbps	25 Gbps
IPS (Ent. Mix)	800 Mbps	1 Gbps	2.25 Gbps	1.4 Gbps	1.4 Gbps	1.4 Gbps	4.5 Gbps
NGFW (Ent. Mix)	570 Mbps	800 Mbps	1.25 Gbps	1 Gbps	1 Gbps	1 Gbps	2.5 Gbps
Threat Protection (Ent. Mix)	500 Mbps	600 Mbps	1.1 Gbps	700 Mbps	800 Mbps	900 Mbps	2.2 Gbps
Interfaces	4 x GE RJ45	5 x GE RJ45	5 x GE RJ45	10 x GE RJ45	10 x GE RJ45	10 x GE RJ45	8x GE RJ45, 2x 10 GE RJ45/SFP+ Shared Media
Storage	-	-	64 GB	128 GB (61F)	128 GB (71F)	128 GB (81F)	120 GB (91G)
Variants	WiFi	WiFi, 3G4G	WiFi, DSL, SFP, POE	WiFi	-	Bypass, PoE, 3G4G, DSL	-
Feature Support	No VDOM, Proxy functions, SSL VPN	No Proxy functions – 7.4.4+, No SSL VPN 7.6.0+	No Proxy functions, SSL VPN	No Proxy functions – 7.4.4+, No SSL VPN 7.6.0+	-	-	No Proxy functions, SSL VPN

FortiGate Mid-Range Series - Overview

High-Performance, Top-Rated Network Security for Mid-Sized Enterprises

- **FG-900G Series**
- **FG-600E/F Series**
- **FG-400E/F Series**
- **FG-200E/F/G Series**
- **FG-100F/120G Series**

NGFW

Secure SD-WAN

SWG *(600 series+)*

IPS *(600 series+)*

20 Gbps – 164 Gbps
Firewall throughput

1.6 Gbps – 22 Gbps
NGFW Throughput

2.6 Gbps – 26 Gbps
IPS Throughput
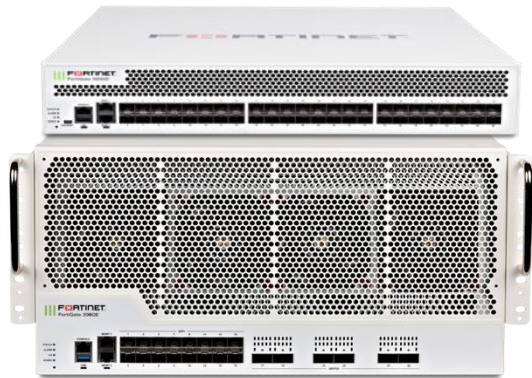
1 Gbps – 20 Gbps
Threat Protection Throughput

GE RJ45 | GE SFP | 10GE SFP+ | 25GE SFP28

FortiGate High End Series - Overview

Data Center Firewall / Large Enterprise NGFW with High-Speed Interfaces

- FG-4000F Series
- FG-3000E/F Series
- FG-2000E/F Series
- FG-1000E/F Series

NGFW, IPS

Segmentation

SWG

Mobile Security

80 Gbps – 3.1 Tbps
Firewall throughput

9 Gbps – 82 Gbps
NGFW Throughput

11.5 Gbps – 94 Gbps
IPS Throughput

5.4 Gbps – 75 Gbps
Threat Protection Throughput

GE RJ45 | GE SFP
10GE SFP+
25GE SFP28
40GE QSFP+
100GE QSFP28
200GE QSFP56
400GE QSFP-DD

The only NGFW that offers SOCaaS

- **Cloud-based**
- **Managed Security & Monitoring**
- **Analyze FortiGate Security Events**

- **Alert triage**
- **Escalates confirmed threats**
- **Recommendations for response**

Monitor
- Monitoring powered by FortiGuard Threat Intelligence and security experts
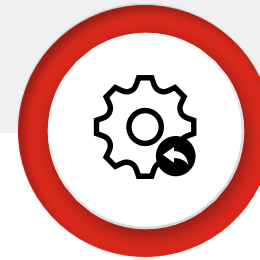
Detect
- 24/7/365 security operations
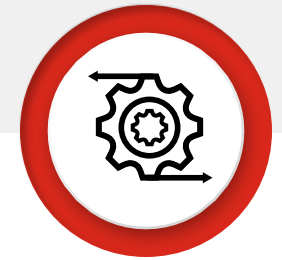- Security event monitoring

Investigate
- Alert triage
- Incident analysis and validation

Respond
- Incident escalation to local teams
- Consultation for remediation and containment

Management & Tuning
- Configuration and security posture improvement

The Broadest Platform in Cybersecurity

Secure Networking

FortiGate
NGFW with ASIC acceleration and industry leading Convergence

FortiAP
Protected Wi-Fi connectivity via Secure Networking convergence with FortiGate

FortiNAC
Visibility, access control and automated responses for all networked devices

FortiGate Cloud
SaaS platform offering zero-touch deployment, network management and security analytics

FortiAIOps
AI based insights for rapid analysis and remediation of network issues

FortiVoice
Unified communications with secure voice, chat, conferencing, and fax

FortiRecorder
Secure NVR with smart AI analysis and centralized visibility

FGaaS
Hardware as a service for FortiGate

FortiSwitch
Protected Ethernet connectivity via Secure Networking convergence with FortiGate

FortiManager
Centralized management of your Fortinet security infrastructure

FortiExtender
Extend scalable and resilient LTE and LAN connectivity

FortiEdge Cloud
Cloud management for standalone LAN, WLAN and 5G gateway equipment

FortiFone
Robust IP phones and softclient to stay connected from anywhere

FortiCamera
Physical security with intelligent motion detection in any light condition

FortiConverter
Secure and automated firewall migration from a broad spectrum of vendors

Resources

Product Matrix
Specifications for top selling models

Free Training
Fortinet is committed to training over 1 million people by 2025

FortiOS
The Heart of the Fortinet Security Fabric

Fortinet Brochure
Highlighting our broad, integrated, and automated solutions, quarterly

Free Assessment
Perform an assessment in your network to validate your existing controls

FortiCare
Support and mitigation services

Unified SASE

SASE

FortiGate SD-WAN
Application-centric, scalable, and Secure SD-WAN with NGFW

FortiClient ZTA Agent
Remote access, application access, and risk reduction

FortiProxy
Enforce internet compliance and granular application control

FortiCASB
Prevent misconfigurations of SaaS apps and meet compliance

FortiClient EPP Agent
Endpoint Protection Agent with AV, URL and Sand-box

FortiSASE
Cloud-delivered Security Services Edge

FortiMonitor
SaaS based DEM platform, performance monitoring

CLOUD

FortiGate VM
NGFW w/ SOC acceleration and industry-leading secure SD-WAN

FortiWeb
Prevent web application attacks against critical web assets

FortiGSLB
Ensure business continuity during unexpected network downtime

FortiFlex
Flexible daily usage-based consumption licensing for a broad catalog of solution

FortiGate CNF
Hosted cloud-native firewall for simplified cloud network security

FortiADC
Application-aware intelligence for distribution of application traffic

FortiDDoS
Machine-learning quickly inspects traffic at layers 3, 4, and 7

FortiPoints
Simplified, flexible licensing for annual contracts, renewals, upgrades, and co-terms

AI-Powered FortiGuard Security

WF Web Filtering
SBX Sandbox
ATTK SRFC Attack Surface
IoC IoC

IPS IPS
IL MPS IL MPS
DLP DLP
IL CASB IL CASB

AV AV
APP CTRL Application Control
OT OT Security Services

Security Operations

FortiAnalyzer
Security Fabric log management, monitoring and response

FortiSIEM
Enterprise-wide monitoring, threat detection, and response

FortiEDR/XDR
Automated endpoint protection and correlated incident response

FortiSOAR
Automated security operations, investigation, and response

FortiNDR
AI-driven analysis to detect and respond to threats

SOCaaS
Continuous security monitoring, incident triage, and escalation

IR Services
Rapid detection, containment, and recovery of cyberattacks

FortiDeceptor
Active deception platform for early in-network attack detection and response

FortiTrust Identity
Identity and Access Management as a Service (IDaaS)

FortiGuest
Access management solution for temporary access to guests and visitors

FortiCNAPP
Secure code to cloud with a single, data-driven platform

FortiNextDLP
Endpoint DLP and Insider Risk management

FortiMail
AI-powered, protection against email-borne threats

FortiSandbox
AI-powered real-time protection against unknown and 0-day threats

FortiToken
Cloud/HW/Mobile MFA provide passwordless adaptive authentication

FortiAuthenticator
Centralized identity and access management solution

FortiGuard MDR Service
Managed threat detection, investigation, and response

FortiRecon
Proactive digital risk protection service and external/internal threat monitoring

FortiPAM
Privileged identity and access management, and session monitoring

FortiTester
Network performance testing and breach attack simulation (BAS)

FortiDevSec
Orchestrated and automated continuous application security testing

FortiDAST
Automated black-box dynamic application security testing

FortiScanner Cloud
Cyber Asset Attack Surface Management Service

FortiAI
Integrated GenAI Assist for SOC and NOC

OT Security Platform

OT Security Service
FortiGuard subscription for FortiGate NGFW enables protection against OT-specific threats

Ruggedized Products
Rugged NGFW, switch, AP, and 5G extenders provide secure connectivity in harsh outdoor environments

FortiSRA
Agentless secure remote access offers robust remote access control, management, session logging, monitoring, and recording

SecOps for OT
Advanced cybersecurity controls bring OT networks into the SOC and incident response plans

Open Ecosystem

FNDN
Advanced tools for Fortinet community to develop custom solutions

Fabric Connectors
Fortinet-developed integrations for automation and security

Fabric API
Partner-developed integrations for end-to-end visibility and protection

DevOps Tools
Community-driven scripts automate network/security tasks

Extended Ecosystem
Integrates with third-party systems and orgs for sharing threat-intel