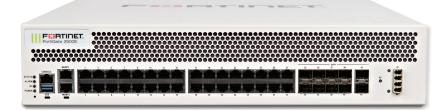


# FortiGate<sup>®</sup> 2500E

Next Generation Firewall Internal Segmentation Firewall Data Center Firewall and IPS



The FortiGate 2500E delivers high performance threat protection for mid-sized to large enterprises and service providers, with the flexibility to be deployed at the Internet or cloud edge, in the data center core or internal segments. The multiple high-speed interfaces, high port density, industry-leading security efficacy and high throughput of the 2500E keeps your network connected and secure.

#### Security

- Protects against known exploits, malware and malicious websites using continuous threat intelligence provided by FortiGuard Labs security services
- Protects against unknown attacks using dynamic analysis and provides automated mitigation to stop targeted attacks

#### Performance

- Delivers industry's best threat protection performance and ultra-low latency using purpose built security processor (SPU) technology
- Provides industry leading performance and protection for SSL encrypted traffic

#### Certification

- Independently tested and validated best security effectiveness and performance
- Received unparalleled third-party certifications from NSS Labs, ICSA, Virus Bulletin and AV Comparatives

#### Networking

- Delivers an extensive routing, switching, wireless controller and high performance IPsec VPN capabilities to consolidate networking and security functionality
- Enables flexible deployment modes that fit into organizations' evolving network infrastructure requirements with high port density and high-speed interfaces

#### Management

- Single Pane of Glass with Network Operations Center (NOC) view provides 360° visibility to identify issues quickly and intuitively
- Predefined compliance checklist analyzes the deployment and highlights best practices to improve overall security posture

#### **Security Fabric**

 Enables Fortinet and Fabric-ready partners' products to collaboratively integrate and provide end-to-end security across the entire attack surface



| Firewall | IPS       | NGFW   | Threat Protection | Interfaces  |
|----------|-----------|--------|-------------------|---|
| 150 Gbps | 11.5 Gbps | 9 Gbps | 5.4 Gbps          | Multiple GE RJ45, 10 GE SFP+ slots and<br>Bypass 10 GE SFP+ ports |

Refer to specification table for details

# DEPLOYMENT



**Next Generation** Firewall (NGFW)

- Security gateway to the Internet for enterprises
- Enforce security policies with granular control and visibility of users and devices for thousands of discrete applications
- Identify and stop threats with powerful intrusion prevention beyond port and protocol that examines the actual content of your network traffic

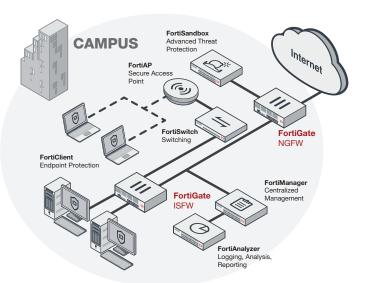


#### **Internal Segmentation** Firewall (ISFW)

- Segmentation solution for end-to-end protection against threats while meeting compliance requirements
- High port density and accelerated traffic processing capacity, to protect multiple segments without compromising performance
- Deploy transparently and rapidly into existing environments with minimal disruption



- High availability, high throughput and low latency firewall for data center edge and core
- High session scale for accommodating large network and user traffic for Internet and cloud-facing data centers
- High-speed interfaces for future-proof connectivity while compact size contributes to greener data centers
- Performance optimized IPS engine to detect and deter latest known and zero day threats



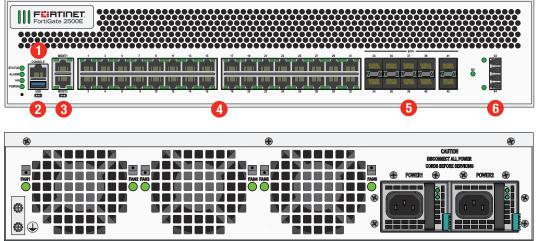
FortiGate 2500E deployment in large campus networks (NGFW, ISFW)

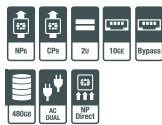
Internet FortiClient VPN Client DATA CENTER FortiGate FortiGate DCFW-IPS ISFW NGFW FortiManag 11, Centralized Management  $\bigcirc$ FortiAnalyzer Logging, Analysis Reporting

> FortiGate 2500E deployment in data center (DCFW-IPS/NGFW, ISFW)

# HARDWARE

## FortiGate 2500E





#### Interfaces

- 1. Console Port
- 2. USB Port
- 3. 2x GE RJ45 Management Ports

#### **NP Direct**

By removing the Internal Switch Fabric, the NP Direct architecture provides direct access to the SPU-NP for the lowest latency forwarding. NGFW deployments require some attention to network design to ensure optimal use of this technology.

## Powered by SPU



- Custom SPU processors deliver the power you need to detect malicious content at multi-Gigabit speeds
- Other security technologies cannot protect against today's wide range of content- and connection-based threats because they rely on general-purpose CPUs, causing a dangerous performance gap
- SPU processors provide the performance needed to block emerging threats, meet rigorous third-party certifications, and ensure that your network security solution does not become a network bottleneck

- 4. 32x GE RJ45 Ports
- 5. 10x 10 GE SFP+ Slots
- 6. 2x 10 GE SFP+ SR (LC Connector, bypass)

#### **Network Processor**

Fortinet's new, breakthrough SPU NP6 network processor works inline with FortiOS functions delivering:

- Superior firewall performance for IPv4/IPv6, SCTP and multicast traffic with ultra-low latency down to 2 microseconds
- VPN, CAPWAP and IP tunnel acceleration
- Anomaly-based intrusion prevention, checksum offload and packet defragmentation
- Traffic shaping and priority queuing

#### **Content Processor**

Fortinet's new, breakthrough SPU CP9 content processor works outside of the direct flow of traffic and accelerates the inspection of computationally intensive security features:

- Enhanced IPS performance with unique capability of full signature matching at ASIC
- SSL Inspection capabilities based on the latest industry mandated cipher suites
- Encryption and decryption offloading

## **10 GE Connectivity**

High speed connectivity is essential for network security segmentation at the core of data networks. The FortiGate 2500E provides high 10 GE port densities, simplifying network designs without relying on additional devices to bridge desired connectivity.



# FORTINET SECURITY FABRIC

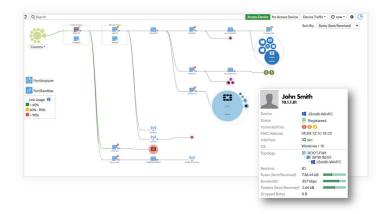
## **Security Fabric**

The Security Fabric allows security to dynamically expand and adapt as more and more workloads and data are added. Security seamlessly follows and protects data, users, and applications as they move between IoT, devices, and cloud environments throughout the network.

FortiGates are the foundation of Security Fabric, expanding security via visibility and control by tightly integrating with other Fortinet security products and Fabric-Ready Partner solutions.

# FortiOS

Control all the security and networking capabilities across the entire FortiGate platform with one intuitive operating system. Reduce operating expenses and save time with a truly consolidated nextgeneration security platform.

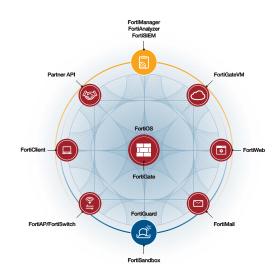


# SERVICES



## FortiGuard<sup>™</sup> Security Services

FortiGuard Labs offers real-time intelligence on the threat landscape, delivering comprehensive security updates across the full range of Fortinet's solutions. Comprised of security threat researchers, engineers, and forensic specialists, the team collaborates with the world's leading threat monitoring organizations and other network and security vendors, as well as law enforcement agencies.



- A truly consolidated platform with one OS for all security and networking services for all FortiGate platforms.
- Industry-leading protection: NSS Labs Recommended, VB100, AV Comparatives, and ICSA validated security and performance.
- Control thousands of applications, block the latest exploits, and filter web traffic based on millions of real-time URL ratings.
- Prevent, detect, and mitigate advanced attacks automatically in minutes with integrated advanced threat protection.
- Fulfill your networking needs with extensive routing, switching, and SD-WAN capabilities.
- Ultilize SPU hardware acceleration to boost security capability performance.
  - For more information, please refer to the FortiOS data sheet available at www.fortinet.com



## FortiCare<sup>™</sup> Support Services

Our FortiCare customer support team provides global technical support for all Fortinet products. With support staff in the Americas, Europe, Middle East, and Asia, FortiCare offers services to meet the needs of enterprises of all sizes.



For more information, please refer to forti.net/fortiguard and forti.net/forticare

# **SPECIFICATIONS**

|  | FORTIGATE 2500E                           |  |  |
|--|---|--|--|
| Hardware Specifications  |   |  |  |
| Hardware Accelerated 10 GE SFP+ Slots                          | 10 + 2 bypass                             |  |  |
| Hardware Accelerated GE RJ45 Ports                             | 32  |  |  |
| GE RJ45 Management / HA Ports                                  | 2   |  |  |
| USB Ports  | 1   |  |  |
| Console Port   | 1   |  |  |
| Onboard Storage  | 480 GB                                    |  |  |
| Included Transceivers  | 2x SFP+ (SR 10GE)                         |  |  |
| System Performance   |   |  |  |
| IPv4 Firewall Throughput<br>(1518 / 512 / 64 byte, UDP)        | 150 / 150 / 95 Gbps                       |  |  |
| IPv6 Firewall Throughput<br>(1518 / 512 / 86 byte, UDP)        | 150 / 150 / 95 Gbps                       |  |  |
| Firewall Latency (64 byte, UDP)                                | 2 µs                                      |  |  |
| Firewall Throughput (Packet per Second)                        | 145.5 Mpps                                |  |  |
| Concurrent Sessions (TCP)                                      | 20 Million                                |  |  |
| New Sessions/Second (TCP)                                      | 500,000                                   |  |  |
| Firewall Policies  | 100,000                                   |  |  |
| IPsec VPN Throughput (512 byte) <sup>1</sup>                   | 95 Gbps                                   |  |  |
| Gateway-to-Gateway IPsec VPN Tunnels                           | 20,000                                    |  |  |
| Client-to-Gateway IPsec VPN Tunnels                            | 100,000                                   |  |  |
| SSL-VPN Throughput   | 6 Gbps                                    |  |  |
| Concurrent SSL-VPN Users<br>(Recommended Maximum, Tunnel Mode) | 10,000                                    |  |  |
| SSL Inspection Throughput (IPS, HTTP) <sup>3</sup>             | 25 / 11.5 Gbps                            |  |  |
| Application Control Throughput<br>(HTTP 64K) <sup>2</sup>      | 20 Gbps                                   |  |  |
| CAPWAP Throughput (1444 byte, UDP)                             | 21 Gbps                                   |  |  |
| Virtual Domains (Default / Maximum)                            | 10 / 500                                  |  |  |
| Maximum Number of Switches Supported                           | 128                                       |  |  |
| Maximum Number of FortiAPs<br>(Total / Tunnel)                 | 4,096 / 1,024                             |  |  |
| Maximum Number of FortiTokens                                  | 5,000                                     |  |  |
| Maximum Number of Registered Endpoints                         | 20,000                                    |  |  |
| High Availability Configurations                               | Active-Active, Active-Passive, Clustering |  |  |
| System Performance — Optimal Traffic Mix                       | :   |  |  |
| IPS Throughput <sup>2</sup>                                    | 25 Gbps                                   |  |  |
| System Performance — Enterprise Traffic N                      | /ix                                       |  |  |
| IPS Throughput <sup>2</sup>                                    | 11.5 Gbps                                 |  |  |
| NGFW Throughput <sup>2,4</sup>                                 | 9 Gbps                                    |  |  |
| Threat Protection Throughput <sup>2, 5</sup>                   |   |  |  |

|  | FORTIGATE 2500E                                     |  |  |
|--|---|--|--|
| Dimensions                               |   |  |  |
| Height x Width x Length (inches)         | 3.5 x 17.4 x 21.9                                   |  |  |
| Height x Width x Length (mm)             | 88 x 442 x 555                                      |  |  |
| Weight                                   | 38.5 lbs (17.6 kg)                                  |  |  |
| Form Factor                              | Rack Mount, 2 RU                                    |  |  |
| Power                                    |   |  |  |
| AC Power Supply                          | 100–240V AC, 50–60 Hz                               |  |  |
| Maximum Current                          | 9A  |  |  |
| Power Consumption (Average / Maximum)    |   |  |  |
| Heat Dissipation                         | 1,604 BTU/h   |  |  |
| Redundant Power Supplies                 | Yes, Hot swappable                                  |  |  |
| Operating Environment and Certifications |   |  |  |
| Operating Temperature                    | 32-104°F (0-40°C)                                   |  |  |
| Storage Temperature                      | -31-158°F (-35-70°C)                                |  |  |
| Humidity                                 | 10–90% non-condensing                               |  |  |
| Noise Level                              | 58 dBA  |  |  |
| Operating Altitude                       | Up to 7,400 ft (2,250 m)                            |  |  |
| Compliance                               | FCC Part 15 Class A, C-Tick, VCCI, CE, UL/cUL, CB   |  |  |
| Certifications                           | ICSA Labs: Firewall, IPsec, IPS, Antivirus, SSL-VPN |  |  |

Note: All performance values are "up to" and vary depending on system configuration.

1. IPsec VPN performance test uses AES256-SHA256.

2. IPS (Enterprise Mix), Application Control, NGFW and Threat Protection are measured with Logging enabled.

3. SSL Inspection performance test uses TLS v1.2 with AES128-SHA256.

- NGFW performance is measured with Firewall, IPS and Application Control enabled.
  Threat Protection performance is measured with Firewall, IPS, Application Control and Malware Protection enabled.

F#RTINET.

# **ORDER INFORMATION**

| Product  | SKU              | Description   |  |  |
|--|------------------|---|--|--|
| FortiGate 2500E                                      | FG-2500E         | 10x 10 GE SFP+ slots, 2x 10 GE bypass SFP+ (LC Adapter), 34x GE RJ45 ports (including 32x ports, 2x management/HA ports), SPU NP6 and CP9 hardware accelerated, 480 GB SSD onboard storage.   |  |  |
| Optional Accessories                                 |                  |   |  |  |
| 10 GE SFP+ transceiver module, short range           | FG-TRAN-SFP+SR   | 10 GE SFP+ transceiver module, long range for all systems with SFP+ and SFP/SFP+ slots.   |  |  |
| 10 GE SFP+ transceiver module, long range            | FG-TRAN-SFP+LR   | 10 GE SFP+ transceiver module, long range for all systems with SFP+ and SFP/SFP+ slots.   |  |  |
| 10 GE SFP+ active direct attach cable, 10m / 32.8 ft | SP-CABLE-ADASFP+ | 10 GE SFP+ active direct attach cable, 10m / 32.8 ft for all systems with SFP+ and SFP/SFP+ slots.  |  |  |
| Rack mount sliding rails                             | SP-FG3040B-RAIL  | Rack mount sliding rails for FG-1000C/-DC, FG-1200D, FG-1500D/DC, FG-2000E, FG-2500E, FG-3040B/-DC, FG-3140B/-DC, FG-3240C/-DC, FG-3000D/-DC, FG-3100D/-DC, FG-3200D/-DC, FG-3700D/-DC, FG-3700DX, FG-3810D/-DC, FG-3815D/-DC and FG-3950B/-DC. |  |  |
| AC power supply                                      | SP-FG2000E-PS    | AC power supply for FG-2000E and FG-2500E.  |  |  |



## FortiGuard Bundle FortiGuard Labs delivers a

number of security intelligence services to augment the FortiGate firewall platform. You can easily optimize the protection capabilities of your FortiGate with one of these FortiGuard Bundles.

| Threat Protection | UTM               | Enterprise Protection |
|-------------------|-------------------|-----------------------|
|                   |                   | •                     |
|                   | •                 | •                     |
|                   | •                 | •                     |
| •                 | •                 | •                     |
| •                 | •                 | •                     |
| •                 | •                 | •                     |
|                   | Threat Protection | Threat Protection UTM |

\* Available when running FortiOS 6.0 and above



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