# FortiOS<sup>™</sup>4.0 Software

FortiGate® Multi-Threat Security



Redefining Network Security



## FortiOS 4.0—Redefining Network Security

FortiOS is a security-hardened, purpose-built operating system that is the software foundation of FortiGate multi-threat network security platforms. Leveraging the hardware acceleration provided by FortiASIC™ content and network processors, FortiOS enables high performance multi-threat security resulting in some of the highest levels of security and performance possible from a single device. When updated with the latest threat intelligence via FortiGuard™ security subscription services, FortiOS is prepared to stop the latest and evolving threats facing networks today.

With the release of FortiOS 4.0, Fortinet has redefined network security *again* by extending the scope of consolidated security and networking capabilities within FortiGate multi-threat network security platforms. While FortiOS 4.0 includes many new features, the most significant additions to the FortiGate platform include Data Leakage Prevention (DLP), WAN Optimization, Application Control, and SSL-Encrypted Traffic Inspection. Organizations of all sizes can now benefit from an integrated solution which offers the most comprehensive suite of security and networking services within a single device—the new services in FortiOS 4.0 joining the already included enterprise-class firewall, IPSec VPN, SSL-VPN, Intrusion Prevention, Antivirus, Web Filtering, Antispam, and Layer 2/3 routing services. With over 40 new features, FortiOS 4.0 delivers on its mission to enable secure business communications while offering the best security, performance, and total cost of ownership possible.



## **Enhanced Security**

FortiOS 4.0 security services are designed from the ground up to be integrated, delivering overall security effectiveness that standalone products simply cannot match. The services work together as a system, acting in tandem to provide better visibility and stop threats as early as possible—resulting in less collateral damage.

## **Improved Value**

FortiOS 4.0 provides access to security services that were previously cost prohibitive or too complex to deploy individually. Moreover, the new features of FortiOS 4.0 are available at no additional cost for every eligible FortiGate device with an active maintenance contract.

## **Simplified Management**

FortiOS 4.0 consolidates security infrastructure and simplifies management. Using a unified policy at the device level, and an appliance-based centralized management platform for large deployments, complexity can be dramatically reduced over standalone offerings. Fortinet even offers a service-based management solution for smaller organizations to further simplify security management, fully integrated with FortiOS 4.0.



## FortiOS 4.0—Over 40 New Features

With over 40 new features, Fortinet engineers have enhanced virtually every aspect of the operating system, including the addition of two distinct services, Data Leakage Prevention and WAN Optimization, which have previously been available as standalone products only. Other features extend existing services, such as an identity-based policy feature, which allows the FortiGate's firewall policies to be defined by user or group. Multiple enhancements to the existing intrusion prevention service allow passive IDS support, and also make the intrusion prevention service IPv6 ready.

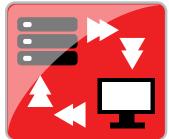
## DATA LEAKAGE PROTECTION



## **Data Leakage Prevention (DLP)**

With increasingly sensitive, confidential, and proprietary data being communicated across networks, the ability to keep that information within defined network boundaries is imperative. Working across multiple applications (including those encrypting their communications), DLP uses a sophisticated pattern-matching and regular-expression engine to identify then prevent the communication of sensitive information outside of the network perimeter. In addition to protecting an organization's critical information, DLP also provides audit trails for data and files, which can aid in legislative compliance. With configurable DLP actions, organizations can log, block, and archive data as well as ban or quarantine users.

## WAN OPTIMIZATION



## **WAN Optimization**

With WAN Optimization, customers can accelerate applications over wide area links and, at the same time, ensure multi-threat security enforcement. FortiOS 4.0 not only eliminates unnecessary and malicious traffic as one of its core capabilities, it also now optimizes legitimate traffic by reducing the amount of communication and data transmitted between applications and servers across the WAN. This results in a much faster user experience—increasing productivity—as well as helping to avoid additional higher-bandwidth provisioning requirements.

## APPLICATION CONTROL



## **Application Control**

With Application Control, security policy can be defined and enforced for thousands of applications, regardless of the port or the protocol used for communication. With the explosion of new web-based applications bombarding networks today, most of which look like normal web traffic to traditional firewalls, application classification and control is essential. Fortinet's Application Control technology identifies application traffic and then applies security policies easily defined by the administrator. The end result: more flexible, more granular policy control and deeper visibility into network traffic.

#### **SSL INSPECTION**



## SSL-Encrypted Traffic Inspection

SSL-Encrypted Traffic Inspection protects clients and web and application servers from malicious SSL-encrypted traffic which security devices are often blind to. With SSL Inspection, encrypted traffic is intercepted and inspected for threats, prior to being allowed access to its final destination. SSL Inspection applies to both client-oriented SSL traffic, such as users connecting to an SSL-encrypted hosted CRM site; and inbound traffic destined an organization's own web and application servers. Inappropriate encrypted web content can now be filtered by appropriate use policies and servers can now be protected from encrypted intrusion attempts and attacks.

#### FortiGate—Purpose-Built Hardware, Software, and Services

FortiGate platforms are based on an integrated hardware, software, and services architecture specifically designed for improved security and performance in perimeter, core, and data center environments. The FortiASIC<sup>TM</sup> Content Processor (CP) is a key component in FortiGate security platforms; providing a hardware scanning engine, hardware encryption, and real-time content analysis processing capabilities. The FortiASIC Network Processor (NP) series of processors provides acceleration for firewall, encryption/decryption. signature and heuristic packet scanning, and bandwidth shaping. FortiOS security applications can be selectively enabled to provide a full suite or a unique set security services all within a single platform. The FortiGuard™ network dynamically updates system software and security services such as antivirus, antispam, Web filtering, antispyware, and intrusion prevention to ensure the maximum level of protection is being provided.

## **FortiOS Security Services**

#### FIRFWALL

ICSA Labs Certified (Enterprise Firewall) NAT, PAT, Transparent (Bridge)

Routing Mode (RIP v1 & v2, OSPF, BGP, & Multicast) Policy-Based NAT

Virtual Domains (NAT/Transparent mode)

VLAN Tagging (802.10)

User Group-Based Authentication

SIP/H.323 /SCCP NAT Traversal

WINS Support

Granular Per-Policy Protection Profiles

**Explicit Proxy Support** 

#### VIRTUAL PRIVATE NETWORK (VPN)

ICSA Labs Certified (IPSec & SSL)

PPTP, IPSec, and SSL

**Dedicated Tunnels** 

DES, 3DES, and AES Encryption Support

SHA-1/MD5 Authentication

PPTP, L2TP, VPN Client Pass Through

Hub and Spoke VPN Support

IKE Certificate Authentication

IPSec NAT Traversal

RSA SecurID Support

Dead Peer Detection

ICSA Labs Certified (Gateway Antivirus) Includes AntiSpyware and Worm Prevention

HTTP/HTTPS SMTP/SMTPS POP3/POP3S IMAP/IMAPS IM Protocols FTP

Automatic "Push" Content Updates from FortiGuard Network

File Quarantine Support Block by File Size or Type

#### WEB FILTERING

76 Unique Categories Provided by the FortiGuard Web Filtering Service Categorizes over 2 Billion Web pages

HTTP/HTTPS Filtering URL/Keyword/Phrase Block

**URL Exempt List** 

Content Profiles

Blocks Java Applet, Cookies, Active X

#### APPLICATION CONTROL

Identification and control over 1000 applications

Control popular IM/P2P protocols:

AOL-IM Yahoo MSN KaZaa ICO Gnutella BitTorrent MySpace WinNY eDonkey Facebook

#### INTRUSION PREVENTION SYSTEM (IPS)

ICSA Labs Certified (NIPS)

Protection From Over 3000 Threats

Protocol Anomaly Support Custom Signature Support

Automatic Attack Database Update

#### DATA LEAKAGE PREVENTION (DLP)

Identification and control over sensitive data in motion

Built-in pattern database

ReEx based matching engine for customized patterns

Configurable actions (block/log) Supports IM, HTTP/HTTPS, and more

Many popular file types supported

#### ANTISPAM

Support for SMTP/SMTPS, POP3/POP3S, IMAP/IMAPS Real-Time Blacklist/Open Relay Database Server

Keyword/Phrase Filtering MIME Header Check

IP Address Blacklist/Exempt List

HIGH AVAILABILITY (HA)

Stateful Failover (FW and VPN) Device Failure Detection and Notification

Active-Active, Active-Passive

Automatic Real-Time Updates From FortiGuard Network

#### ENDPOINT COMPLIANCE AND CONTROL

Monitor & control hosts running FortiClient Endpoint Security

## FortiOS Networking Services

#### **NETWORKING/ROUTING**

Multiple WAN Link Support

PPPoE Support DHCP Client/Server

Policy-Based Routing Dynamic Routing (RIP v1 & v2, OSPF, BGP, & Multicast)

Multi-Zone Support Route Between Zones

Route Between Virtual LANs (VDOMS)

Multi-Link Aggregation (802.3ad) IPv6 Firewall and Management Support

## TRAFFIC SHAPING

Policy-based Traffic Shaping Differentiated Services (DiffServ) Support Guarantee/Max/Priority Bandwidth

#### VIRTUAL DOMAINS (VDOMs)

Separate Firewall/Routing domains

Separate Administrative domains

Separate VLAN interfaces

10 VDOM license standard, upgradable with additional license

#### DATA CENTER OPTIMIZATION

Web Server Caching HTTPS Offloading

TCP Multiplexing

## Server Load Balancing

Link Status Monitor

I ink failover

WAN OPTIMIZATION Bi-Directional / Gateway to Client/Gateway Integrated Caching and Protocol Optimization

Accelerates CIES/FTP/MAPI/HTTP/HTTPS/Generic TCP

Requires a FortiGate device with Hard Drive

## FortiOS Management Services

#### MANAGEMENT/ADMINISTRATION OPTIONS

Console Interface (RS-232)

WebUI (HTTP/HTTPS) Telnet / Secure Command Shell (SSH)

Command Line Interface Role-Based Administration

Multi-language Support

Multiple Administrators and User Levels

Upgrades and Changes Via TFTP and WebUI

System Software Rollback

Central Management via FortiZManager (optional)

#### LOGGING/MONITORING

Internal Logging

Log to Remote Syslog/WELF server

Graphical Real-Time and Historical Monitoring SNMP

**Email Notification of Viruses And Attacks** 

**VPN Tunnel Monitor** 

Optional FortiAnalyzer Logging

Optional FortiGuard Analysis and Management Service

#### FIREWALL USER AUTHENTICATION OPTIONS

Local Database

Windows Active Directory (AD) Integration

External RADIUS/LDAP Integration

IP/MAC Address Binding
Xauth over RADIUS for IPSEC VPN

RSA SecurID Support

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### GLOBAL HEADQUARTERS

1090 Kifer Road, Sunnyvale, CA 94086 USA Tel +1-408-235-7700

Fax +1-408-235-7737 www.fortinet.com/sales

## EMEA SALES OFFICE-FRANCE

120 rue Albert Caquot 06560, Sophia Antipolis, France Tel +33-4-8987-0510 Fax +33-4-8987-0501

#### APAC SALES OFFICE - SINGAPORE

61 Robinson Road #09-04 Robinson Centre Singapore 068893 Tel: +65-6513-3730HHH

Fax: +65-6223-6784











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