

FortiCarrier™ Mobile Security

Solution Brief

MOBILE SECURITY



Securing Mobile Network Infrastructure

Mobile operators use a variety of industry-specific networking equipment, communication protocols, and signaling services that enable current and next-generation mobile voice and data networks. To secure these critical service delivery components, Fortinet developed FortiCarrier network security platforms. The FortiCarrier platforms include extensions to protect mobile networks from the unique threats they face, including theft of services, identity fraud, mobile spam, mobile malware, and Denial of Service (DoS) attacks. The FortiCarrier platforms improve the overall reliability of the mobile network, maintain service quality and assure customer satisfaction.

Enhancing Value to Customers with Additional Security Services

FortiCarrier platforms also provide mobile network operators with an all-in-one solution that they can use to deliver highly profitable add-on security services to their customers. Through the use of FortiCarrier platform's Dynamic Security Profiles, operators can provide opt-in/opt-out and tiered security services on a per-end point basis. These services include parental control, malware protection, and application control. In fact, the FortiCarrier platform enables operators to develop any security service configured via FortiCarrier platform's protection profiles into an optional value-added service.

Secure Multimedia Messaging Service (MMS)

- Inspection of content on MM1, MM3, MM4, and MM7 interfaces
- Malware detection with sender MMS notification
- Antifraud/Antispam detection using heuristic thresholds with operator MMS notification
- Score-Based keyword blocking and file type analysis
- Intercept/Block/Quarantine/Replace actions for flexible operator control
- VDOM, VLAN, transparent mode, and High Availability (HA) support

Dynamic Security Profiles

- Provides opt-in/opt-out and tiered security services per end point
- End points can be defined by authenticated site, user, or MSISDN
- Reduces provisioning overhead
- Security services can include parental control, malware protection, and application control
- Additional services can be created using a blend of options from FortiOS Carrier's protection profiles
- Scales up to 600,000 end points per FortiCarrier device

GTP Firewall

- Protocol anomaly detection and prevention
- Multiple filter options (Message, APN, IE removal)
- Packet sanity checking
- Stateful session inspection
- Over billing protection
- Designed to 3GPP 29.060 version 6.9.0
- High Availability (HA) and Virtual Domain (VDOM) Support



FortiCarrier-5001A (FCR-5001A-DW)



FortiCarrier-3810A (FCR-3810A)

VOICE SECURITY



FORTICARRIER VOICE SECURITY

FortiCarrier platforms integrate with IMS and other SIP-based voice networks to offer added protection for voice communications. Refer to the FortiCarrier Voice Security solution brief for more details on secured voice communications using FortiCarrier platforms.

FORTICARRIER MOBILE SECURITY PERFORMANCE

MMS Inspection (messages per second)..... Up to 400
 Dynamic Security Profiles Up to 600,000
 Performance metrics given apply to FortiCarrier hardware models FCR-5001A and FCR-3810A
 Messages per second performance will vary depending on system configuration and message size

MOBILE SECURITY FEATURES

DYNAMIC SECURITY PROFILES

Assignment of Service Policy by MSISDN (Mobile Station) Service Policy Can Define the Settings for Any of the Advanced Security Services Provided by FortiOS Carrier Enables Parental Control and Opt-Out Services

MMS GENERAL

Support for Multiple MMS Policy Profiles for Consolidated or MVNO Deployments
Customizable Notification Messages (Per MVNO)
MSISDN Header Parsing (Including Cookie Extraction & Hex-Based Conversions for MM1/MM7 Message Types)
MMS File Intercept to FortiAnalyzer Appliances for Forensic Analysis
MMS Content Archive (Full MMS Message Archiving to FortiAnalyzer Appliances with HTTP/SMTTP Transport Headers)
Per MSISDN & Per Mobile Station Type Reporting of Malicious Activity via FortiAnalyzer Appliances

MMS ANTIVIRUS

Monitor Only & Active Blocking Modes (Per Interface Type)
Simultaneous Malware Scanning of MM1/MM3/MM4/MM7 Message Types
Remove Malicious Content Only Option (Allows Message Transaction to Complete)
File Type Analysis with Configurable Block or Intercept Actions (File Extension Independent)
Configurable Retrieve Message Scanning (MM1) to Avoid Redundant Inspection
Per Sender Scanning with Configurable Block/Archive/ Intercept Actions
MM1/MM7 Client & Server Comforting

MMS ANTISPAM / ANTIFRAUD

MM1/MM4 Flood Detection with Three Configurable Thresholds with Discrete Actions
MM1/MM4 Duplicate Message Detection with Configurable Thresholds and Actions
Configurable Alert Notification to Administrator of Spam or Fraud Activity
MM1/MM7 Banned Word Scoring with Configurable Block/ Pass Actions

GTP FIREWALL

Based on 3GPP 29.060 version 6.9.0
Integrated Intrusion Prevention Inspection for GTP Payloads For Gn/Gp Interfaces
GTP Packet Sanity Check, Length Filtering & Type Screening
GSN Tunnel Limiting & Rate Limiting
GTP Stateful Inspection
Hanging GTP Tunnel Cleanup
GTP Tunnel Fail-Over for High Availability
GTP IMSI Prefix (up to 1000) & APN (up to 2000) Filtering
GTP Sequence Number Validation
IP Fragmentation of GTP Messages
GGSN & SGSN Redirection
Detecting GTP-in-GTP Packets
GTP Traffic Counting & Logging
Anti-Overbilling Together with Gi Firewall
Encapsulated Traffic Filtering with Anti-Spoofing Capabilities
GTP Protocol Anomaly Detection and Exploit Prevention
Handover Control to Prevent Session Hijacking
For Gi Interface
Anti-Overbilling Together with Gn/Gp Firewall

OTHER SECURITY FEATURES

DYNAMIC SECURITY PROFILES

Assignment of Service Policy by User (Up to 600,000 Users) Service Policy Can Define the Settings for Any of the Advanced Security Services Provided by FortiOS Carrier Enables Parental Control and Opt-Out Services

VIRTUAL DOMAIN (VDOM)

Support for Hundreds of Enterprise Customers per Physical Blade/Appliance, Scaling to Thousands of Enterprise Customers per Chassis

MULTI-THREAT SECURITY

Firewall (ICSA Labs Certified)
IPSec VPN (ICSA Labs Certified)
SSL-VPN (ICSA Labs Certified)

MULTI-THREAT SECURITY (CONTINUED)

Intrusion Prevention System (ICSA Labs Certified)
Gateway Antivirus (ICSA Labs Certified)
Web Filtering (Over 2 Billion URLs Categorized)
Antispam Filtering
Application Control (Thousands of Applications Categorized)
Data Leakage Prevention (DLP)
L2 / L3 Routing with Rate Limiting
SSL-Based Traffic Inspection

Refer to FortiOS 4.0 Software Brochure for Complete Details on the Wide-Range of Multi-Threat Security Features Offered

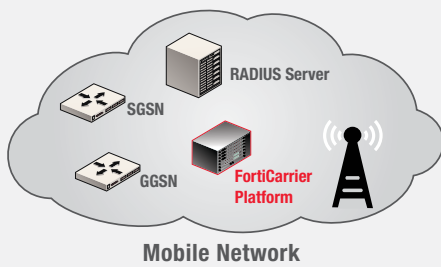
CENTRALIZED LOGGING AND ALERTING

Provided by FortiAnalyzer Appliances
All Log and Alert Functions Configurable per Customer
Consolidates Security and System Event Logs
Event Correlation, Graphical Reports, Network Data Statistics

CENTRALIZED MANAGEMENT

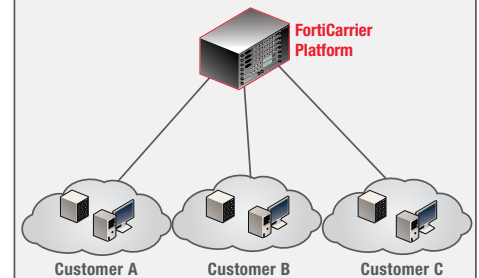
Provided by FortiManager Appliances
Deployment Configuration / Provisioning
Real-Time Monitoring
Device & Security Policy Maintenance
Localized Security Content Update Server & Rating Database for Managed Devices

Infrastructure Protection



FortiCarrier platforms can be used to protect the operator's infrastructure and can also be used as a service delivery platform for optional security services.

Customer Protection



FortiGuard Security Subscription Services

- Antivirus
- Intrusion Prevention

- Web Filtering
- Antispam

- Premier Signature Service
Includes Antivirus and Intrusion Prevention Updates with additional service level agreements

FortiCare™ Support Services

- 24/7/365 Web-Based Technical Support
- Technical Account Management Service (Optional)

- 24-Hour Phone-Based Support (Optional)
- Professional Services (Optional)

- 1-Year Limited Hardware Warranty
- 90-Day Limited Software Warranty

FORTINET®

GLOBAL HEADQUARTERS

Fortinet Incorporated
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

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

APAC SALES OFFICE-SINGAPORE

Fortinet Incorporated
61 Robinson Road
#09-04 Robinson Centre
Singapore 068893
Tel: +65-6513-3730
Fax: +65-6223-6784