

FortiCarrier™-5001A

Service Provider
Large Enterprise

Datasheet

Specialized Security Solutions for Service Providers

As the communications industry continues its convergence toward an all-IP model, service providers of all types are challenged with transforming their infrastructure into a modern service delivery network. A service provider's next generation network must be adaptable and able to support new services faster, while also lowering operational costs. As service providers abandon the "stove-pipe" approach to service delivery in favor of next generation architectures, it is critical that they address the security of their new solutions to ensure service uptime and prevent fraud.

From a financial perspective, securing the service delivery platform is key to driving revenue, profitability, and long-term success. A well-designed security infrastructure can be used to both secure the provider's networks and deliver a range of security services to end-users, which increase revenue for the service provider and increase value for the end-user. Fortinet provides such a solution with its FortiCarrier product line, addressing the security needs of both the operator and the end-user in a single, yet extensible, security offering.

FortiCarrier platforms represent a range of security solutions that extend the integrated security concept to protect critical applications across a service provider's IP network. The platforms are designed to secure the business of mobile operators, voice operators, Managed Security Service Providers (MSSPs), and large enterprises, enabling the migration to next generation network architectures. FortiCarrier platforms facilitate rapid service deployment while simultaneously delivering the lowest total cost of ownership for security infrastructure.



FortiCarrier-5001A (FCR-5001A-DW)
Shown with optional ADM-XB2 Module



ADM-XE2 Security Processing Module
(2-Port 10-GigE Hardware Accelerated)



ADM-XB2 Accelerated Interface Module
(2-Port 10-GigE Hardware Accelerated)



ADM-FB8 Accelerated Interface Module
(8-Port GigE Hardware Accelerated)

Images not to scale

Key Problems

- Migration to service delivery over IP networks exposes critical business to new threats.
- Competition has commoditized connectivity offerings, driving service providers to differentiate themselves through a portfolio of add-on services.
- Converged services maintain unique security requirements and are also susceptible to blended threats.

Solutions

FortiCarrier platforms are powered by FortiOS Carrier software, a specialized security operating system that provides multi-threat security with additional extensions to protect the service provider network from cyber attacks, identity theft, network overload, and malicious service hijacking.

In addition to protecting the service network, FortiCarrier platforms give the operator the ability to offer their customers "Security as a Service" from the same platform, maximizing the Fortinet investment and generating incremental revenue at no additional cost.

Fortinet was founded on the concept of integrated security. FortiCarrier platforms integrate multiple inspection technologies that can secure multiple services and protect against blended threats.

FortiCarrier Specialized Security Solutions

FortiCarrier specialized security solutions enable security as a service offerings with an integrated set of security technologies that support a wide range of service provider requirements. FortiCarrier systems provide the essential security services from the FortiGate product line, with fully integrated firewall, Virtual Private Network (VPN), intrusion prevention, antivirus/antispymware, Web filtering, antispam, data leakage prevention, and application control services. In addition, FortiCarrier systems extend the integrated security model for service providers to offer signaling firewalls, GTP firewalls, MMS malware scanning, and MMS antispam filtering. Finally, FortiCarrier platforms can dynamically assign security profiles to a subscriber's traffic, automating the provisioning and ongoing management of security services provided to a customer.



TECHNICAL SPECIFICATIONS



FortiCarrier-5001A

HARDWARE SPECIFICATIONS

Form Factor ATCA Blade with onboard double-width AMC expansion bay
 Total 10/100/1000 Interfaces (RJ-45,)..... 2
 Maximum Network Interfaces (With ADM-FB8 Module)..... 10
 AMC Expansion Slot 1 Double Width

SYSTEM PERFORMANCE

Firewall Throughput (Base Unit + AMC Module)..... 13 Gbps
 Firewall Throughput (Base Unit)..... 2 Gbps
 VPN (IPSec) Throughput (Base Unit + AMC Module) 7 Gbps
 VPN (IPSec) Throughput (Base Unit)..... 800 Mbps
 IPS Throughput (Base Unit + AMC Module)..... 4 Gbps
 IPS Throughput (Base Unit)..... 2 Gbps
 Antivirus Throughput..... 500 Mbps
 MMS Antivirus Throughput 400 messages per second
 Dedicated IPSec VPN Tunnels 64,000
 Concurrent Sessions (TCP)..... 2,000,000
 New Sessions/Sec (TCP) 50,000
 SIP Signalling Throughput 10,000 messages per second
 SIP Call Setup Throughput..... 2,000 call attempts per second (CAPS)
 SIP Signalling Sessions (Max)..... 500,000
 Policies (Max)..... 100,000
 Unlimited User Licenses Yes
 Virtual Domains (VDMs) 10 (up to 500 Optional)
 High Availability Configurations Active/Active, Active/Passive, Clustering

DIMENSIONS

Height..... 1.18 in (30 mm)
 Width..... 13.98 in (355 mm)
 Length..... 12.20 in (310 mm)
 Weight..... 7.8 lb (3.54 kg)
 Power Required -40.5 V (DC) to -57 V (DC)
 Power Consumption (AVG)..... 148 W

ENVIRONMENT

Operating temperature..... 32 to 104 deg F (0 - 40 deg C)
 Storage temperature..... -31 to 158 deg F (-35 to 70 deg C)
 Humidity 20 to 90% non-condensing
 Compliance..... FCC Class A Part 15, UL/CB/CUL, C Tick, CE, VCCI
 Certifications ICSA Labs: Firewall, IPSec, SSL-TLS, IPS, Antivirus
 All performance values are "up to" and vary depending on system configuration
 Antivirus performance is benchmarked using HTTP traffic (32 Kbyte Objects)
 SIP performance is benchmarked using signalling traffic only
 MMS performance varies depending on MMS message size

FortiGate-5000 Series ATCA Chassis



FortiGate-5140

FortiGate-5140 Chassis

(Configured with FortiCarrier-5001A Blades)

- 14 Available Front-Side Slots
- High-Availability Backplane
- Dual-Switch Blade Support
- Max Firewall Throughput - 182 Gbps
- VPN Throughput - 98 Gbps
- Concurrent Sessions - 28 Million



FortiGate-5050

FortiGate-5050 Chassis

(Configured with FortiCarrier-5001A Blades)

- 5 Available Front-Side Slots
- High-Availability Backplane
- Dual-Switch Blade Support
- Max Firewall Throughput - 65 Gbps
- VPN Throughput - 35 Gbps
- Concurrent Sessions - 10 Million



FortiGate-5020

FortiGate-5020 Chassis

(Configured with FortiCarrier-5001A Blades)

- 2 Available Slots
- High-Availability Backplane
- Max Firewall Throughput - 26 Gbps
- VPN Throughput - 14 Gbps
- Concurrent Sessions - 4 Million

FortiGate-5000 Series Rear Transition Module XB2 (RTM-XB2)



RTM-XB2 Fabric Module

- Provides 10-Gigabit Ethernet backplane fabric connectivity to a FortiCarrier-5001A and FortiSwitch-5003A equipped system
- Includes FortiASIC™ Network Processor acceleration
- One required per FortiCarrier-5001A blade in a FortiCarrier/FortiSwitch solution

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



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