

FortiTester

Enterprise-scale network security testing



FortiTester appliances offer enterprises and service providers a cost-effective solution for performance testing and validating their network security infrastructure and services, providing a comprehensive range of application test cases to evaluate equipment and right-size infrastructure. All test functionality is included in one simple device-based license.

Comprehensive testing and flexible operation

FortiTester provides powerful yet easy-to-use test cases that simulate many stateful applications and malicious traffic. Built-in reporting provides comprehensive information about the test including SNMP stats from the DUT. It enables you to establish performance standards and run audits to validate they continue to be met. A single 40 GE appliance allows over 20 million concurrent connections and new HTTP connection rates greater than 1 million/second, hardware-based acceleration supports new HTTPS connection rates above 20,000/second. Up to 8 appliances can be grouped in Test Center mode to massively scale performance. 40 GE device interfaces can be split to 4x 10 GE SFP+ for additional testing flexibility. 100 GE, 10 GE devices and VM versions complete the Tester range, with competitive price points for their target customers.



Highlights

- Cost-effective performance and security testing system for enterprises and service providers.
- Flexible operation modes from 1 standalone device up to 8 devices combined in Test Center mode.
- 40 GE QSFP+ interface support on 3000E (with 4x 10 GE SFP+ split mode).
- 100 GE QSFP28, 40 GE QSFP+ with 4x 10 GE fan-out, 10/1 GE SFP+ appliances.
- VM version with support for VMware ESXi and KVM hypervisors.
- No add-on licenses. Simple device-based license for all functionality.
- REST API for test automation.

Key Features and Benefits

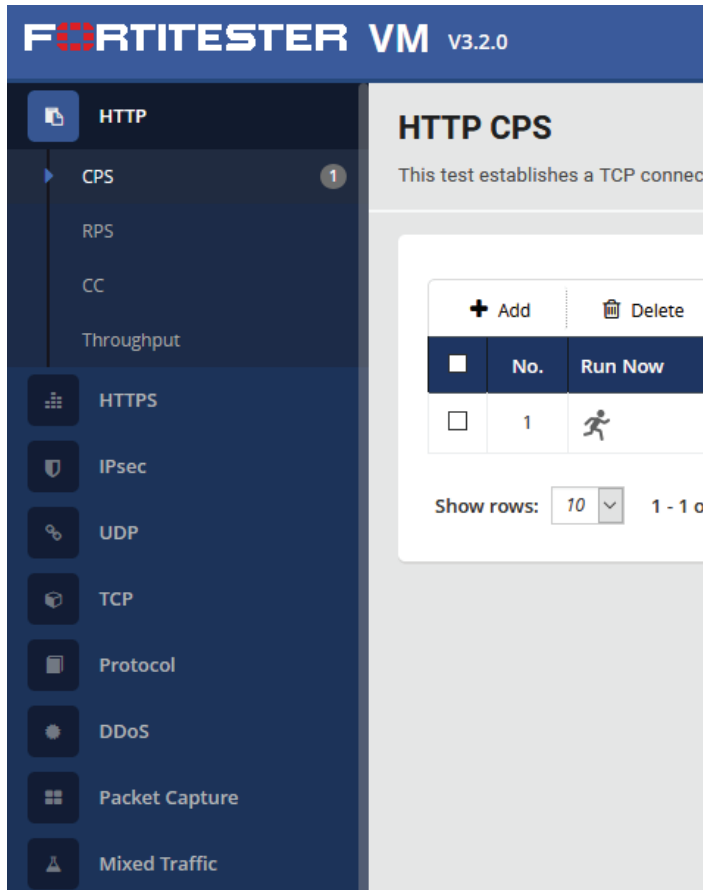


Simple device-based license	All test cases and tester functionality, including attack traffic samples, are provided in a simple device-based license.
Comprehensive test cases	Includes a wide range of test cases for IPv4 and IPv6 covering application and video delivery, IPsec, mobility, network services, and attack replay.
Advanced test case options	Easily change test case options — for example, such as how sessions are closed, piggybacking, randomize source ports, specify SSL versions and ciphers, include payload for inline scanning and sandboxing. Adjust load parameters while tests are running.

SOFTWARE

Test case configuration

Easily configure test cases for applications, traffic generation, application simulation, and malicious traffic, using FortiTester's web interface.



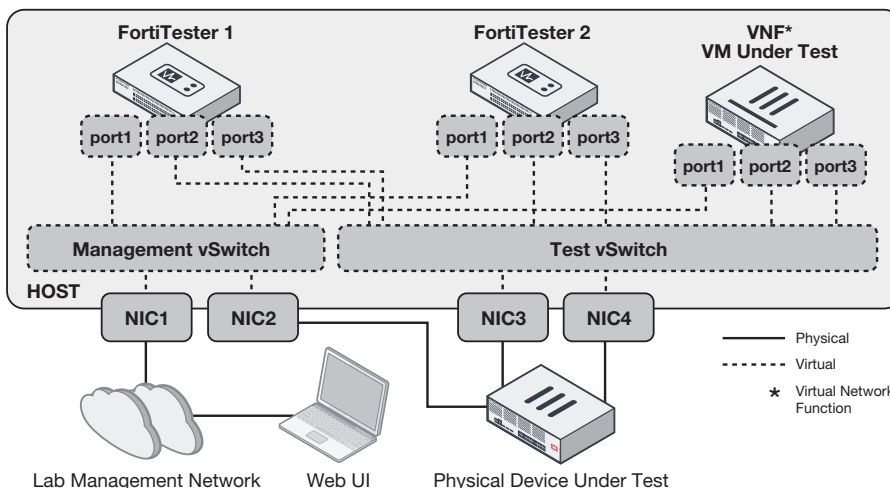
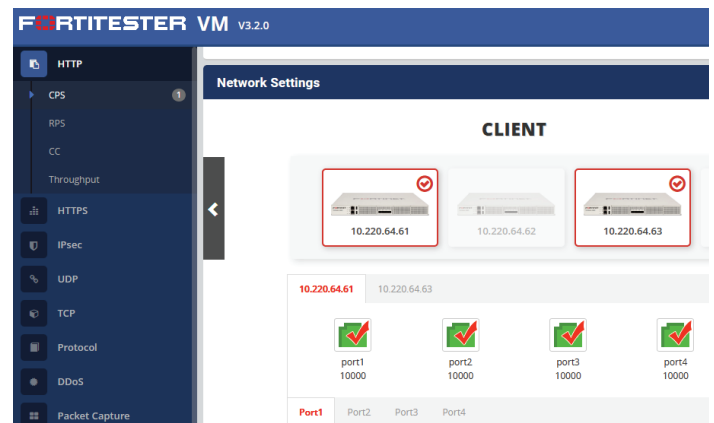
Standalone and test center modes

The two software components in FortiTester are the traffic generator and the test center. The traffic generator is the engines, assigned CPU cores, and physical interfaces. The test center is the user interface, test cases, and system management. In Standalone mode, test center works with the local traffic generator. In Test Center mode, test center connects to the local traffic generator and remote traffic generators on other FortiTesters, allowing you to scale your performance testing requirements.

Current Work Mode: **TestCenter**

Standalone Test Center

✖ Disconnect					
	No.	Host Name	Management IP	System Version	SN
<input type="checkbox"/>	1	FortiTester	10.220.64.61	FortiTester-VM 3.2.0 build0045 20171221	FTSV04000013
<input type="checkbox"/>	2	FortiTester	10.220.64.62	FortiTester-VM 3.2.0 build0045 20171221	FTSV04000013
<input type="checkbox"/>	3	FortiTester	10.220.64.63	FortiTester-VM 3.2.0 build0045 20171221	FTSV04000013
<input type="checkbox"/>	4	FortiTester	10.220.64.64	FortiTester-VM 3.2.0 build0045 20171221	FTSV04000013



Example deployment for both virtual and physical device tests

Virtual machine

The virtual machine version allows performance and validation testing for both physical and virtual network services and infrastructure. Ideal for customers implementing network functions virtualization (NFV) and software defined networking (SDN.) Both vSwitch and PCI-E passthrough are supported, providing flexibility and performance for vm-based testing. Furthermore, test center mode enables the virtual solution to easily scale up to 8 testers (or scale down to multiple standalone units), providing flexibility and performance.

SPECIFICATIONS

FORTITESTER 2000D		
Hardware Specifications		
Total Interface	4x 10 GE SFP+ slots, 1x Management GE RJ45 port	
Storage	120 GB SSD	
Form Factor	1U	
Performance Examples and Application Support	Standalone mode	Test Center mode with 4 devices
HTTP Throughput	19.9 Gbps	78 Gbps
HTTP Connections Per Second	835,000	2,753,000
HTTP Concurrent Connections	9,500,000	38,000,000
SSL Throughput	1.1 Gbps	5 Gbps
SSL Connections Per Second	2,300	9,000
SSL Concurrent Connections	14,000	56,000
IPsec	Yes	No*
Protocol (SMTP, POP3, IMAP, FTP, LDAP, NTP, DNS, RTSP/RTP, DHCP, TFTP, RADIUS, IGMP)	Yes	Yes
RFC2544	Yes	Yes
DDoS	Yes	Yes
Replay — Traffic, Attack, GTP	Yes	No
Dimensions and Power		
Height x Width x Length (inches)	1.73 x 17.24 x 22.83	
Height x Width x Length (mm)	44 x 438 x 580	
Weight	24.23 lbs (11.08 kg)	
Power Required	100–240V AC, 60–50 Hz, Redundant	
Power Consumption (Average / Maximum)	300 W / 360 W	
Maximum Current	120V/6A, 240V/3A	
Heat Dissipation	1228 BTU/h	
Redundant Power Supplies	Dual Power Supplies	
Environment		
Operating Temperature	32–104°F (0–40°C)	
Storage Temperature	-4–158°F (-20–70°C)	
Humidity	5–95% non-condensing	
Operating Altitude	Up to 7,400 ft (2,250 m)	
Compliance		
Regulatory Compliance	FCC Part 15 Class A, C-tick, VCCI, CE, UL/c	
Safety	CSA, C/US, CE, UL	

Based on SSL/TLS cipher suite: TLS_RSA_WITH_AES_256_GCM_SHA384 with 1K key size.

* maximum of 2 devices in test center mode for IPsec testing.

SPECIFICATIONS

FORTITESTER 2500E		
Hardware Specifications		
Total Interface	4x 10 GE SFP+ slots, 1x Management GE RJ45 port	
Storage	120 GB SSD	
Form Factor	1U	
Performance Examples and Application Support	Standalone mode	Test Center mode with 2 devices
HTTP Throughput	20 Gbps	39.9 Gbps
HTTP Connections Per Second	882,000	1,727,000
HTTP Concurrent Connections	10,000,000	20,000,000
SSL Throughput	1.4 Gbps	2.8 Gbps
SSL Connections Per Second	18,000	32,000
SSL Concurrent Connections	15,000	30,000
IPsec	Yes	Yes*
Protocol (SMTP, POP3, IMAP, FTP, LDAP, NTP, DNS, RTSP/RTP, DHCP, TFTP, RADIUS, IGMP)	Yes	Yes
RFC2544	Yes	Yes
DDoS	Yes	Yes
Replay — Traffic, Attack, GTP	Yes	No
Dimensions and Power		
Height x Width x Length (inches)	1.73 x 17.24 x 22.83	
Height x Width x Length (mm)	44 x 438 x 580	
Weight	22.6 lbs (10.3 kg)	
Power Required	100–240V AC, 63–47 Hz, Redundant	
Power Consumption (Average / Maximum)	300 W / 360 W	
Maximum Current	120V/5A, 240V/3A	
Heat Dissipation	1228.4 BTU/h	
Redundant Power Supplies	Dual Power Supplies	
Environment		
Operating Temperature	32–104°F (0–40°C)	
Storage Temperature	-4–158°F (-20–70°C)	
Humidity	5–95% non-condensing	
Operating Altitude	Up to 7,400 ft (2,250 m)	
Compliance		
Regulatory Compliance	FCC Part 15 Class A, C-tick, VCCI, CE, UL/c	
Safety	CSA, C/US, CE, UL	

Based on SSL/TLS cipher suite: TLS_RSA_WITH_AES_256_GCM_SHA384 with 1K key size.

* maximum of 2 devices in test center mode for IPsec testing.

SPECIFICATIONS

FORTITESTER 3000E		
Hardware Specifications		
Total Interfaces	2x 40 GE QSFP slots, 1x Management GE RJ45 port	
Storage	2 TB HDD	
Form Factor	1U	
System Performance	Standalone mode	Test Center mode with 2 devices
HTTP Throughput	39.9 Gbps	79 Gbps
HTTP Connections Per Second	1,200,000	2,500,000
HTTP Concurrent Connections	21,000,000	42,000,000
SSL Throughput	2.8 Gbps	5 Gbps
SSL Connections Per Second	23,000	38,000
SSL Concurrent Connections	18,000	30,000
IPsec	Yes	Yes
Protocol (SMTP, POP3, IMAP, FTP, LDAP, NTP, DNS, RTSP/RTP, DHCP TFTP, RADIUS, IGMP)	Yes	Yes
RFC2544	Yes	Yes
DDoS	Yes	Yes
Replay — Traffic, Attack, GTP	Yes	No
Dimensions and Power		
Height x Width x Length (inches)	1.73 x 17.24 x 22.83	
Height x Width x Length (mm)	44 x 438 x 580	
Weight	22.6 lbs (10.3 kg)	
Power Required	100–240V AC, 63–47 Hz, Redundant	
Power Consumption (Average / Maximum)	300 W / 360 W	
Maximum Current	120V/5A, 240V/3A	
Heat Dissipation	1228.4 BTU/h	
Redundant Power Supplies	Dual Power Supplies	
Environment		
Operating Temperature	32–104°F (0–40°C)	
Storage Temperature	-4–158°F (-20–70°C)	
Humidity	5–95% non-condensing	
Operating Altitude	Up to 7,400 ft (2,250 m)	
Compliance		
Regulatory Compliance	FCC Part 15 Class A, C-tick, VCCI, CE, UL/c	
Safety	CSA, C/US, CE, UL	

Based on SSL/TLS cipher suite: TLS_RSA_WITH_AES_256_GCM_SHA384 with 1K key size.

Note that the 3000E's 6 CPU cores and 2 NICs, compared with the 2000D's 4 CPU cores and 4 NICs, means that some tests may have comparatively lower performance.

SPECIFICATIONS

FORTITESTER 4000E		
Hardware Specifications		
Total Interfaces	1x 100 GE QSFP28, 1x GE RJ45	
Storage	2 TB HDD	
Form Factor	1U	
System Performance	Standalone mode	Test Center mode with 2 devices
HTTP Throughput	Client-only	93 Gbps
HTTP Connections Per Second	Client-only	810,000
HTTP Concurrent Connections	Client-only	84,000,000
SSL Throughput	Client-only	5.5 Gbps
SSL Connections Per Second	Client-only	40,500
SSL Concurrent Connections	Client-only	30,000
IPsec	No	Yes
Protocol (SMTP, POP3, IMAP, FTP, LDAP, NTP, DNS, RTSP/RTP, DHCP, TFTP, RADIUS, IGMP)	Client-only	Yes
RFC2544	No	Yes
DDoS	Client-only	Yes
Replay — Traffic, Attack, GTP	No	No
Dimensions and Power		
Height x Width x Length (inches)	1.73 x 17.24 x 22.83	
Height x Width x Length (mm)	44 x 438 x 580	
Weight	22.6 lbs (10.3 kg)	
Power Required	100–240V AC, 63–47 Hz, Redundant	
Power Consumption (Average / Maximum)	300 W / 360 W	
Maximum Current	120V/5A, 240V/3A	
Heat Dissipation	1228.4 BTU/h	
Redundant Power Supplies	Dual Power Supplies	
Environment		
Operating Temperature	32–104°F (0–40°C)	
Storage Temperature	-4–158°F (-20–70°C)	
Humidity	5–95% non-condensing	
Operating Altitude	Up to 7,400 ft (2,250 m)	
Compliance		
Regulatory Compliance	FCC Part 15 Class A, C-tick, VCCI, CE, UL/c	
Safety	CSA, C/US, CE, UL	

Based on SSL/TLS cipher suite: TLS_RSA_WITH_AES_256_GCM_SHA384 with 1K key size.

SPECIFICATIONS

FORTITESTER VM04		
Virtual Machine		
Hypervisor Support	VMware	
vCPUs	4	
Memory	8 GB	
Storage	32 GB	
Network Interfaces	1 Management (E1000) + 4 Tester (VMXNET3/VIRTIO)	
System Performance	PCI-E Passthrough	vSwitch
HTTP Throughput	13 Gbps	14 Gbps
HTTP Connections Per Second	784,000	353,000
HTTP Concurrent Connections	2,000,000	2,000,000
SSL Throughput	1.2 Gbps	1.1 Gbps
SSL Connections Per Second	2,700	2,600
SSL Concurrent Connections	15,000	15,000
IPsec	Yes	Yes
Protocol (SMTP, POP3, IMAP, FTP, LDAP, NTP, DNS, RTSP/RTP, DHCP, TFTP, RADIUS, IGMP)	Yes	Yes
RFC2544	Yes	Yes
DDoS	Yes	Yes
Replay — Traffic, Attack, GTP	Yes	Yes

Based on SSL/TLS cipher suite: TLS_RSA_WITH_AES_256_GCM_SHA384 with 1K key size.

ORDER INFORMATION

Product	SKU	Description
FortiTester VM04	FTS-VM04	Network Performance and Security Testing System for Enterprises and Service Providers – Virtual appliance with 4x vCPU cores and 8 GB memory, supporting VMware/VMXNET3 and KVM/VIRTIO.
FortiTester 2000D	FTS-2000D	Network Performance and Security Testing System for Enterprises and Service Providers – 1x GE RJ45, 4x 10 GE SFP+, 120 GB SSD storage.
FortiTester 2500E	FTS-2500E	Network Performance and Security Testing System for Enterprises and Service Providers – 1x GE RJ45, 4x 10 GE SFP+, 120 GB SSD storage.
FortiTester 3000E	FTS-3000E	Network Performance and Security Testing System for Enterprises and Service Providers – 1x GE RJ45, 2x 40 GE QSFP, 2 TB HDD storage.
FortiTester 4000E	FTS-4000E	Network Performance and Security Testing System for Enterprises and Service Providers. – 1x GE RJ45, 1x 100 GE QSFP28, 2 TB HDD storage. (Please note, two devices using Test Center mode are typically required.)



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