

**DATA SHEET**

# FortiGate® Virtual Appliances

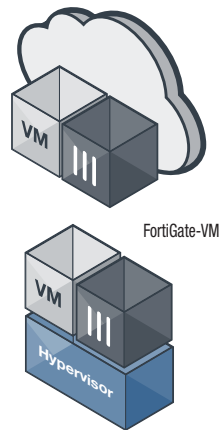
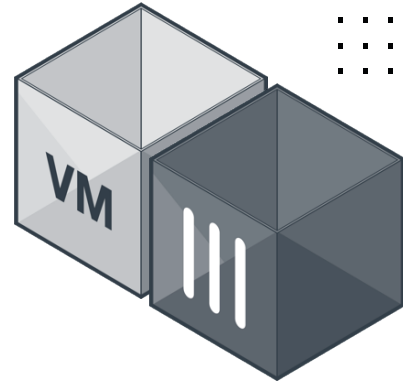
Consolidated Security for Virtualized Environments

Complete end-to-end security ecosystem for the software-defined datacenter. Fortinet enables and facilitates the enterprise's journey through the datacenter consolidation process.

Fortinet delivers both physical and virtualized security appliances to secure unique data planes. It offers on one side, unmatched performance and security capabilities, while allowing for the growth and evolution of the consolidating datacenter with no service degradation or bottlenecks, no compromise on security, and with an unmatched ROI — fulfilling the outcomes of a robust software-defined security framework.

FortiGate virtual appliances allow you to mitigate blind spots by implementing critical security controls within your virtual infrastructure. They also allow you to rapidly provision security infrastructure whenever and wherever it is needed. FortiGate virtual appliances feature all of the security and networking services common to traditional hardware-based FortiGate appliances. With the addition of virtual appliances from Fortinet, you can deploy a mix of hardware and virtual appliances, operating together and managed from a common centralized management platform.

**Next Generation Firewall  
 VPN Gateway**



Fortinet's comprehensive security virtual appliance lineup supports in excess of 16 solutions.

**Benefits**

- Protection from a broad array of threats, with support for all of the security and networking services that the FortiOS operating system offers
- Increased visibility within virtualized infrastructure monitoring
- Rapid deployment capability
- Ability to manage virtual and physical appliances from a single pane of glass management platform
- Simple licensing with no per-user fees
- Support for multiple virtualization and cloud platforms
- Full support for FortiHypervisor deployments enabling line-speed security in vCPE requirement
- Wide array of licensing choices to fit any infrastructure requirement
- VDOM-enabled models for multi-tenant environments

## PLATFORMS

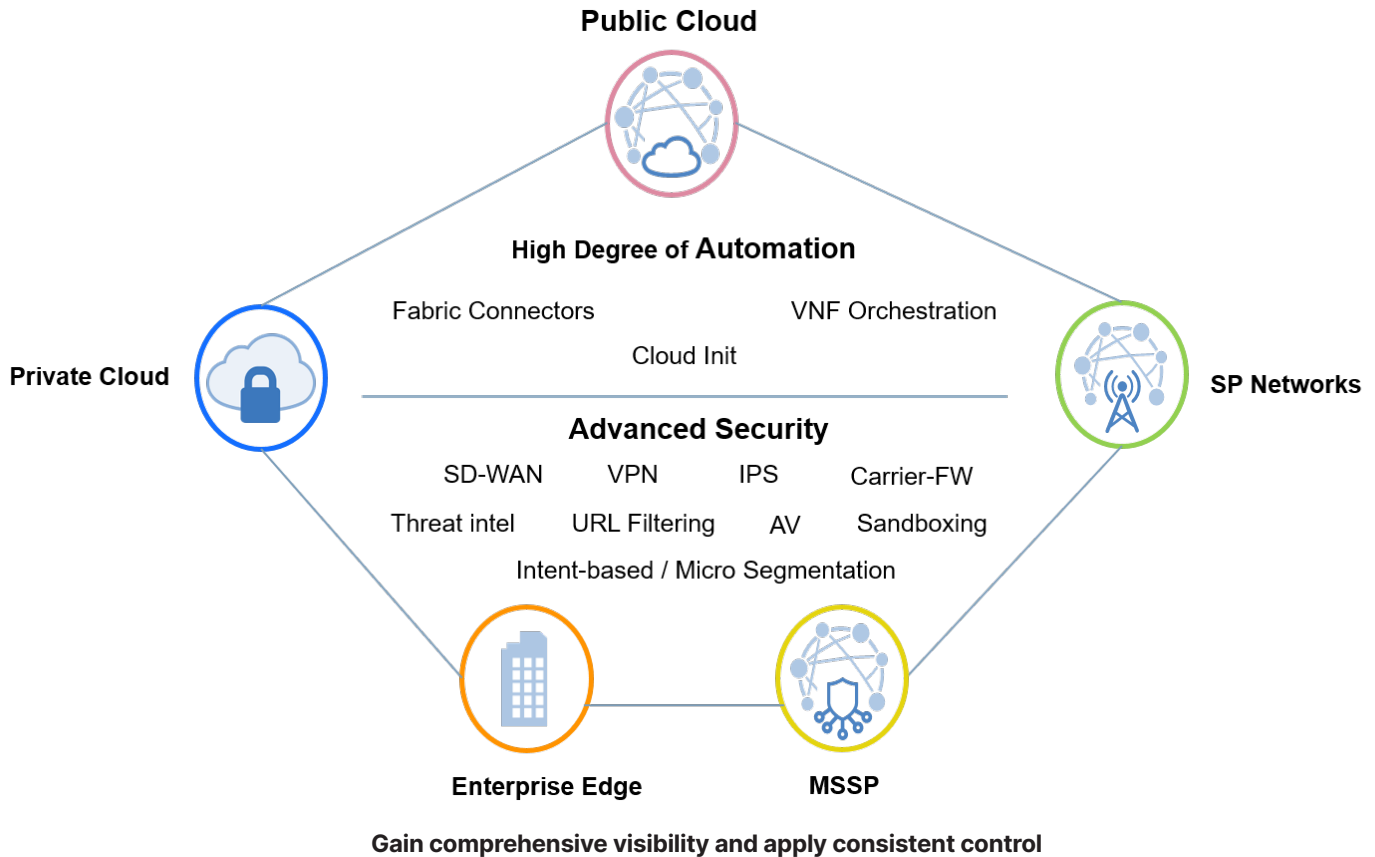
### Choice of Form Factor

Few organizations use 100% hardware or 100% virtual IT infrastructure today, creating a need for both hardware and virtual appliances in your security strategy. Fortinet allows you to build the security solution that is right for your environment with hardware and virtual appliances to secure the core and the edge and increase visibility and control over communications within the virtualized infrastructure. FortiManager virtual or physical appliances allow you to easily manage and update your Fortinet security assets — hardware, virtual, or both — from a single pane of glass.

### Multi-Threat Security

Using the advanced FortiOS™ operating system, FortiGate appliances effectively neutralize a wide range of security threats facing your virtualized environment. Whether deployed at the edge as a front-line defense, or deep within the virtual infrastructure for inter-zone security, FortiGate appliances protect your infrastructure with some of the most effective security available today by enabling security features you need.

## DEPLOYMENT



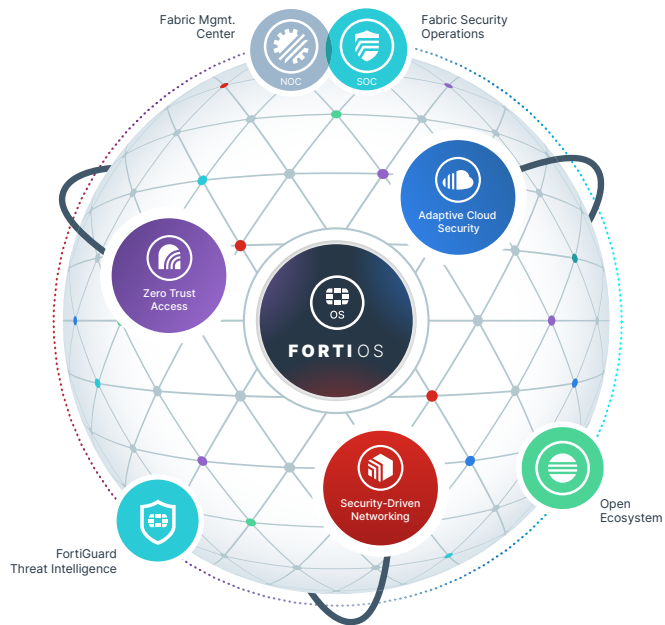
# FORTINET SECURITY FABRIC

## Security Fabric

The industry's highest-performing cybersecurity platform, powered by FortiOS, with a rich ecosystem designed to span the extended digital attack surface, delivering fully automated, self-healing network security.

- **Broad:** Coordinated detection and enforcement across the entire digital attack surface and lifecycle with converged networking and security across edges, clouds, endpoints and users
- **Integrated:** Integrated and unified security, operation, and performance across different technologies, location, deployment options, and the richest Ecosystem
- **Automated:** Context aware, self-healing network & security posture leveraging cloud-scale and advanced AI to automatically deliver near-real-time, user-to-application coordinated protection across the Fabric

The Fabric empowers organizations of any size to secure and simplify their hybrid infrastructure on the journey to digital innovation.



### FortiOS™ Operating System

FortiOS, Fortinet's leading operating system enable the convergence of high performing networking and security across the Fortinet Security Fabric delivering consistent and context-aware security posture across network endpoint, and clouds. The organically built best of breed capabilities and unified approach allows organizations to run their businesses without compromising performance or protection, supports seamless scalability, and simplifies innovation consumption.

The release of FortiOS 7 dramatically expands the Fortinet Security Fabric's ability to deliver consistent security across hybrid deployment models consisting on appliances, software and As-a-Service with SASE, ZTNA and other emerging cybersecurity solutions.

## SERVICES

### FortiGuard™ 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.

### FortiCare™ Services

Fortinet is dedicated to helping our customers succeed, and every year FortiCare services help thousands of organizations get the most from their Fortinet Security Fabric solution. We have more than 1,000 experts to help accelerate technology implementation, provide reliable assistance through advanced support, and offer proactive care to maximize security and performance of Fortinet deployments.



## SPECIFICATIONS

	VM-01/01V/01S	VM-02/02V/02S	VM-04/04V/04S	VM-08/08V/08S	VM-16/16V/16S	VM-32/32V/32S	VM-UL/ULV/ULS
<b>Technical Specifications</b>							
<b>vCPU Support (Minimum / Maximum)</b>	1 / 1	1 / 2	1 / 4	1 / 8	1 / 16	1 / 32	1 / unlimited
<b>Storage Support (Minimum / Maximum)</b>	32 GB / 2 TB	32 GB / 2 TB	32 GB / 2 TB	32 GB / 2 TB	32 GB / 2 TB	32 GB / 2 TB	32 GB / 2 TB
<b>Wireless Access Points Controlled (Tunnel / Global)</b>	32 / 64	512 / 1,024	512 / 1,024	1,024 / 4,096	1,024 / 4,096	1,024 / 4,096	1,024 / 4,096
<b>Virtual Domains (Default / Maximum) *</b>	10 / 10	10 / 25	10 / 50	10 / 500	10 / 500	10 / 500	10 / 500
<b>Firewall Policies</b>	10,000	10,000	10,000	200,000	200,000	200,000	200,000
<b>Maximum Number of Registered Endpoints</b>	2,000	2,000	8,000	20,000	20,000	20,000	20,000
<b>Unlimited User License</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note: All performance values are "up to" and vary depending on system configuration.  
 Network Interface Support  
 The maximum number of network interfaces consumable by a FortiGate instance is 24 starting with FortiGate version 6.4.0. Prior versions allow 18. The minimum number is 1. The actual number of network interfaces attachable to instances varies depending on cloud platforms

and instance types, and they may not allow you to attach the greater number of interfaces to an instance than their maximum limits even while FortiGate allows up to 24.

\* FG-VMxxV and FG-VMxxS series do not come with a multi-VDOM feature by default. You can add it by applying separate VDOM addition perpetual licenses. See ORDERING INFORMATION for VDOM SKUs.

### VENDOR

#### Private Clouds (Hypervisors)

VMware ESXi v5.5 / v6.0 / v6.5 / v6.7 / v7.0

VMware NSX-T\* v2.3 / v2.4 / v2.5

Microsoft Hyper-V Server 2008 R2 / 2012 / 2012 R2 / 2016 / 2019\*\*

Microsoft AzureStack

Citrix Xen XenServer v5.6 sp2, v6.0, v6.2 and later

Open source Xen v3.4.3, v4.1 and later

KVM qemu 0.12.1 & libvirt 0.10.2 and later for Red Hat Enterprise Linux / CentOS 6.4 and later / Ubuntu 16.04 LTS (generic kernel)

KVM qemu 2.3.1 for SuSE Linux Enterprise Server 12 SP1 LTSS

Nutanix AHV (AOS 5.10, Prism Central 5.10)\*\*\*

Cisco Cloud Services Platform 2100\*\*\*\*

Cisco ENCS (NFVIS 3.12.3)\*\*\*\*

\* See the NSX-T on VMware Compatibility Guide for the latest supported platforms.

\*\* FortiGate-VM 6.2.3+ supports Microsoft Hyper-V 2019.

\*\*\* FortiGate-VM 6.0.3+ supports Nutanix AHV and Cisco CSP 2100.

\*\*\*\* FortiGate-VM 6.2.3+ supports Cisco NFVIS 3.12.3.

### VENDOR

#### Public Clouds (Marketplaces)

Amazon AWS (including GovCloud and AWS China)

VMware Cloud on AWS\*

VMware Cloud on Dell EMC\*\*

Microsoft Azure (including regional Azure: US Gov, Germany, and China) and AzureStack syndication

Google GCP (Google Cloud Platform)

Oracle OCI

Alibaba Cloud (AliCloud)

IBM Cloud (Gen1 / Gen2)

Virtualization/Cloud Platform Support varies by model and FortiOS builds. Please refer to appropriate release notes.

FG-VMxxV series require FortiOS 5.4.8+ / 5.6.1+ / 6.0.0+.

\* FortiGate-VM 6.0.4+ supports VMware Cloud on AWS.

\*\* FortiGate-VM 6.2.3+ supports VMware Cloud on Dell EMC.

## ORDERING INFORMATION

The following SKUs adopt the perpetual licensing scheme: available with marketplace-listed products.

Product	SKU	Description
<b>FortiGate-VM01</b>	FG-VM01, FG-VM01V	FortiGate-VM 'virtual appliance'. 1x vCPU core. No VDOM by default for FG-VM01V model.
<b>FortiGate-VM02</b>	FG-VM02, FG-VM02V	FortiGate-VM 'virtual appliance'. 2x vCPU cores. No VDOM by default for FG-VM02V model.
<b>FortiGate-VM04</b>	FG-VM04, FG-VM04V	FortiGate-VM 'virtual appliance'. 4x vCPU cores. No VDOM by default for FG-VM04V model.
<b>FortiGate-VM08</b>	FG-VM08, FG-VM08V	FortiGate-VM 'virtual appliance'. 8x vCPU cores. No VDOM by default for FG-VM08V model.
<b>FortiGate-VM16</b>	FG-VM16, FG-VM16V	FortiGate-VM 'virtual appliance'. 16x vCPU cores. No VDOM by default for FG-VM016V model.
<b>FortiGate-VM32</b>	FG-VM32, FG-VM32V	FortiGate-VM 'virtual appliance'. 32x vCPU cores. No VDOM by default for FG-VM032V model.
<b>FortiGate-VMUL</b>	FG-VMUL, FG-VMULV	FortiGate-VM 'virtual appliance'. Unlimited vCPU cores. No VDOM by default for FG-VMULV model.
Optional Accessories/Spares	SKU	Description
<b>Virtual Domain License Add 5</b>	FG-VDOM-5-UG	Upgrade license for adding 5 VDOMs to FortiOS 5.4 and later, limited by platform maximum VDOM capacity.
<b>Virtual Domain License Add 15</b>	FG-VDOM-15-UG	Upgrade license for adding 15 VDOMs to FortiOS 5.4 and later, limited by platform maximum VDOM capacity.
<b>Virtual Domain License Add 25</b>	FG-VDOM-25-UG	Upgrade license for adding 25 VDOMs to FortiOS 5.4 and later, limited by platform maximum VDOM capacity.
<b>Virtual Domain License Add 50</b>	FG-VDOM-50-UG	Upgrade license for adding 50 VDOMs to FortiOS 5.4 and later, limited by platform maximum VDOM capacity.
<b>Virtual Domain License Add 240</b>	FG-VDOM-240-UG	Upgrade license for adding 240 VDOMs to FortiOS 5.4 and later, limited by platform maximum VDOM capacity.

FortiGate-VM 6.2.2 no longer has RAM restriction on all vCPU models while prior versions still restrict RAM sizes per model. Upgrade to 6.2.2 is necessary to remove the restriction.



## ORDERING INFORMATION

The following SKUs adopt the annual subscription licensing scheme:

Product	SKU	Description
FortiGate-VM01-S	FC1-10-FGVVS-<Support Bundle>-02-DD	Subscriptions license for FortiGate-VM (1 vCPU core)
FortiGate-VM02-S	FC2-10-FGVVS-<Support Bundle>-02-DD	Subscriptions license for FortiGate-VM (2 vCPU cores)
FortiGate-VM04-S	FC3-10-FGVVS-<Support Bundle>-02-DD	Subscriptions license for FortiGate-VM (4 vCPU cores)
FortiGate-VM08-S	FC4-10-FGVVS-<Support Bundle>-02-DD	Subscriptions license for FortiGate-VM (8 vCPU cores)
FortiGate-VM16-S	FC5-10-FGVVS-<Support Bundle>-02-DD	Subscriptions license for FortiGate-VM (16 vCPU cores)
FortiGate-VM32-S	FC6-10-FGVVS-<Support Bundle>-02-DD	Subscriptions license for FortiGate-VM (32 vCPU cores)
FortiGate-VMUL-S	FC7-10-FGVVS-<Support Bundle>-02-DD	Subscriptions license for FortiGate-VM (Unlimited vCPU cores)

FortiOS 6.2.3+ and 6.4.0+ support the FortiGate-VM S-series. The FortiGate-VM S-series does not have RAM restrictions on all vCPU levels. FortiManager 6.2.3+ and 6.4.0+ support managing FortiGate-VM S-series devices.

## BUNDLES



### 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.

Bundles	Enterprise Protection	Unified Threat Protection	Advanced Threat Protection
FortiCare	24x7	24x7	24x7
FortiGuard App Control Service	•	•	•
FortiGuard IPS Service	•	•	•
FortiGuard Advanced Malware Protection (AMP) — Antivirus, Mobile Malware, Botnet, CDR, Virus Outbreak Protection and FortiSandbox Cloud Service	•	•	•
FortiGuard Web and Video <sup>1</sup> Filtering Service	•	•	
FortiGuard Antispam Service	•	•	
FortiGuard Security Rating Service	•		
FortiGuard IoT Detection Service	•		
FortiGuard Industrial Service	•		
FortiConverter Service	•		

1. Available when running FortiOS 7.0



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