How To

FortiGate & FortiGate VM Sizing Guide

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Selling the Right FortiGate

What are the Organisation's Growth Plans?

With expansion plans throughput from the Internet could escalate rapidly.

To handle the change, you need to select a firewall solution that can scale up as the throughput increases, either by adding more components to the firewall, or by installing another firewall in parallel.

Consider the Requirements

A common mistake made by businesses when sizing a firewall is to use employee count. User count should refer to the number of devices (including BYOD) that will need to access the firewall at any given point in time both now and in the future.

A firewall, intended for a dozen users but bombarded by hundreds of devices will result in patchy performance and complete overload.

Questions to Ask

- How many users are connected to the network, internal and remote?

- What is the estimated number of devices/BYOD?

- Are there any servers that users are connecting to via the FortiGate?(Regard each server as +10 users)

- Are there any servers remotely accessed i.e., used to upload files, web servers?

- Number of interfaces required? Is there a requirement for additional switches to extend the interfaces, manage APs etc.

- Bandwidth of connection, both uplink and downlink. Is this an SD-WAN implementation?

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Users	FortiGate	Models	Interface	Threat Protection Throughput	Other Comments
1 – 60	FortiGate 40F	FG-40F FG-40F-3G4G FWF-40F-E FWF-40F-3G4G	4XGE, 1XGE, FortiLink Port	600 Mbps	Ideal for high SSL, VPN connection, SD-WAN, 310Mbps SSL New integrated wireless
10-40	FortiGate 60E	FG-60E-DSL	9GE + 1 inbuild x DSL modem	150-180Mbps	Inbuilt DSL Modem
40-100	FortiGate 60F	FG-60F FG-61F FWF-60F-E FWF-61F-E	8xGE, 2xGE FortiLink Ports	700 Mbps	Ideal for high SSL, VPN connections and designed for SD-WAN
	FortiGate 70F	FG-70F FG-71F	8xGE, 2xGE FortiLink Ports	700 Mbps	Designed for SD-WAN, Alternative to 60F
60-120	FortiGate 80F	FG-80F GH-80F-BYPASS FG-80F-DSL FG-80F-POE FG-81F FWF-80F-2R-E	8xGE, 2 x shared RJ45/SFP WAN Includes Embedded DSL Module 8xGE, 2 x shared RJ45/SFP WAN Includes 128Gb SSD Includes Dual WiFi Radio	900 Mbps	Please see the product brochure for a complete list of variants. Includes 128Gb SSD
100-180	FortiGate 100F	FG-100F FG-101F	18xGE, 8xGE SFP, 2x10GE FortiLink	800 Mbps – 1 Gbps	Dual AC Power supplied Includes 480Gb SSD
150-400	FortiGate 200F	FG-200F FG-201F	18xGE RJ45, 4x10Gb SFP, 8xGE SFP	3 Gbps	Dual AC Power supplied Includes 480Gb SSD
Up to 1000	FortiGate 400F	FG-400F FG-401F	16GE + 16GE SFP	Up to 5 Gbps	Dual AC Power supplied Includes 480Gb SSD

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vCPU (min/max)	1/1	1/2	1/4	1/8	1/16	1/32	Unlimited
Storage	32Gb / 2TB	32Gb / 2TB	32Gb / 2TB	32Gb / 2TB	32Gb / 2TB	32Gb / 2TB	32Gb / 2TB
Firewall Throughput	12 Gbps	13.7 Gbps	20 Gbps	30 Gbps	36 Gbps	50 Gbps	
SSL VPN Throughput	0.8 Gbps	0.8 Gbps	2 Gbps	4.5 Gbps	8.5 Gbps	8.6 Gbps	
SSL VPN Users	1,000	2,000	4,500	10,000	20,000	20,000	
Threat Protection	0.7 Gbps	1.2 Gbps	2.2 Gbps	4.5 Gbps	7 Gbps	13 Gbps	
FortiGate Equivalent	FG-60F	FG-100F to 200F	FG-200F	FG-400F	FG-600F	FG-600F to 1100E	

NOTES

- Minimum recommended memory requirements 8Gb
- Actual performance may vary depending on the network and system configuration/platform. Performance metrics were observed using a DELL R740
- (CPU Intel Xeon Platinum 8168 @ 2.7 GHz, 96 cores, Intel X710 network adapters)
- Threat Protection performance is measured with IPS and Application Control and Malware protection enabled, based on Enterprise Traffic Mix.

VDOM SUPPORT

- FortiGate VMxx units include 10 VDoMs as standard
- FortiGate VMxxV units have NO included VDoMs

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 will vary 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.FortiGate VMxxV units have NO included VDoMs