

How To Guide

Sizing FortiGate & FortiGate VMs

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Questions To Ask

- Number of users connected to the network, internal and remote. 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

Additional Options

- WiFi requirements - how many access points are required to provide secure WiFi access
- FortiClient - provides remote VPN access, AV, Application firewall for end points
- Unmanaged FortiClient is free for VPN access, Manager requires FortiClient EMS
- 2 factor Authentication - Adds 2FA to user authentication via Hardware or Software token

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USERS	FORTIGATE UNIT	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
60-120	FortiGate 80F	FG-80F FG-81F	8xGE, 2 x shared RJ45/SFP WAN	900 Mbps	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
100-250	FortiGate 200E	FG-200E FG-201E	14xGE + 4xGE SFP	1 – 1.2 Gbps	Includes 480Gb SSD
150-400	FortiGate 200F	FG-200F FG-201F	16xGE, 4x10Gb SFP, 8xGE SFP	3 Gbps	Dual AC Power supplied Includes 480Gb SSD
Up to 750	FortiGate 400E	FG-400E FG-401E	16GE + 16GE SFP	Up to 5 Gbps	Includes 480Gb SSD

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	FG-VM01/01V	FG-VM02/02V	FG-VM04/04V	FG-VM08/08V	FG-VM16/16V	FG-VM32/32V	VMUL/ULV
vCPU (min/max)	1/1	1/2	1/4	1/8	1/16	1/32	1/Unlimited
Storage	32Gb/2TB	32Gb/2TB	32Gb/2TB	32Gb/2TB	32Gb/2TB	32Gb/2TB	32Gb/2TB
Firewall throughput	12Gbps	13.7Gbps	20Gbps	30Gbps	36Gbps	50Gbps	
SSL VPN Throughput	0.8Gbps	0.8Gbps	2Gbps	4.5Gbps	8.5Gbps	8.6Gbps	
SSL VPN Users	1000	2000	4500	10000	20000	20000	
Threat Protection	0.7Gbps	1.2Gbps	2.2Gbps	4.5Gbps	7Gbps	13Gbps	
Fortigate Equivalent	FG-60F	FG-100F - FG-200E	FG-200F	FG-400E	FG-600E	FG-600E - 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

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