

#### **DATA SHEET**

# **FortiADC™**

Available in:









Virtual Machine

Hoste

Tiosted Glodd

## **Advanced Application Delivery Controller**



## **Application Delivery Without Any Limits**

FortiADC is an advanced Application Delivery Controller (ADC) that ensures application availability, application security, and application optimization. FortiADC offers advanced security features (WAF, DDoS, and AV) and application connectors for easy deployment and full visibility to your networks and applications. FortiADC can be deployed as a physical or virtual machine (VM), or as a Cloud solution.



#### **Application Availability**

24×7 application availability through automatic failover for business continuity with application automation, global server load balancing, and link load balancing to optimize WAN connectivity.



#### **Application Optimization**

Multi-core processor technology combined with hardware-based SSL offloading and server optimization to increase end-user QoE.



#### **Application Protection**

Advanced Web Application Firewall protection from the **OWASP Top 10** and threat detection with Fortinet FortiGuard Cloud Services.



FortiCare Worldwide 24/7 Support

support.fortinet.com



FortiGuard Security Services

www.fortiguard.com

## **Highlights**

- Advanced Application Load Balancing
- Protection from the OWASP Top 10 application attacks
- Multi-Deployment Mode with Hardware, VM, or Cloud Solution (PAYG/ BYOL)
- SSL Security and Visibility with Hardware-based Solution
- Automation and Fabric Connector to Third Party Solutions such as SAP, Cisco ACI, AWS, and K8s
- User Authentication and Authorization via MFA and SSO
- FortiGSLB Cloud Integration Maximizes Service Availability

FortiADC 100F, 120F, 220F, 300F, 400F, 1200F, 2200F, 4200F, 5000F, and VM



#### **HIGHLIGHTS**

## **Application Availability**

Applications are the lifeblood of a company's online presence. Unresponsive applications can result in lost revenue and customers taking their future business elsewhere. Application performance, scalability, and resilience are key but none of this matters unless the end-user has a good experience and completes their transaction.

FortiADC is a dedicated Application Delivery Control solution that provides a multi-tenancy solution (VDOM), high availability, and scalability with hybrid solution deployment (on-premises and cloud offering) to your applications.

## **SSL Security**

FortiADC delivers high capacity decryption and encryption with the latest cryptography standard using hardware-based SSL ASIC. FortiADC provides SSL offloading, SSL inspection and visibility to inspect traffic for threats, speeds up server response, and reduces the load on the backend server. FortiADC also integrates with Gemalto's SafeNet Enterprise Hardware Security Module (HSM).

## **Business Continuity**

FortiADC's included Global Server Load Balancing (GSLB) module on-prem or in the cloud (FortiGSLB Cloud) makes your network reliable and available by scaling applications across multiple data centers for disaster recovery or to improve application response times. Customers can set up rules based on site availability, data center performance, and network latency.

# **Application Protection**

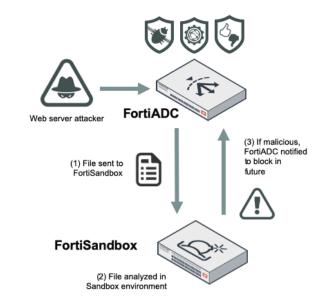
FortiADC offers multiple levels of protection to defend against attacks that target your web applications. FortiADC Web Application Firewall can detect a zero day attack and protect from **OWASP Top 10** and many other threats with multi-vector protection. FortiADC also supports our FortiGuard Cloud which provides multi services such as IPS, Antivirus, and IP Reputation service (subscription required) that protects you from sources associated with DoS/DDoS attacks, phishing schemes, spammers, malicious software, and botnets.

## **Application Optimization**

FortiADC provides multiple services that speed the delivery of applications to users. The PageSpeed suite of website performance enhancement tools can automatically optimize HTTP, CSS, Javascript, and image delivery to application users. FortiADC also provides Dynamic Caching and HTTP Compression and Decompression to improve end-user experience and server productivity.

## **FortiADC Security Fabric**

As the threat landscape evolves, many new risks require a multi-pronged approach for protecting applications. FortiADC's antivirus and integration with FortiSandbox extend basic security protections to scan file attachments for known and unknown threats.



#### **Automation and Connectors**

FortiADC Fabric Connectors provide open API-based integration and orchestration with multiple software-defined networks (SDN), cloud, management, and partner technology platforms. Fortinet Fabric Connectors deliver turnkey, open, and deep integration into third party services such as K8s, AWS, OCI, and SAP, in multi-vendor ecosystems, enabling scalability, security automation, and simplified management.



## **HIGHLIGHTS**

## **Unleash the Power of Scripts**

FortiADC Scripts provides the flexibility to create custom event-driven rules using predefined commands, variables, and operators. Using easy-to-create scripts, you get the flexibility you need to extend your FortiADC with specialized business rules that give you almost unlimited possibilities for server load balancing, health checks, application validation, content routing, and content rewriting to meet the needs of your organization.

## **Application Authentication**

FortiADC provides centralized user authentication and authorization services to web applications. FortiADC acts as a gatekeeper to offload HTTP authentication and authorization to customer applications using single sign-on (SSO) services, SAML, LDAP, RADIUS, and MFA (using FortiToken Cloud and Google authenticator).

## **WAN Optimization**

FortiADC provides a built-in link optimization with the Link Load Balancing module. Customers can create two or more WAN links (for inbound and outbound Link LB) to reduce the risk of outages or to add additional bandwidth to relieve traffic congestion.

## **Analytics and Visibility**

FortiADC offers a comprehensive monitoring system for your network and application. With FortiView, customers can get real-time and historical data into a single view on your FortiADC. We also provide a network logical topology of real-servers, user/application data-analytics, security threats, attack maps, and some other system events and alerts. FortiADC is integrated with third party solutions such as Splunk, FortiAnalyzer, and FortiSIEM for more visibility, correlation, automated response, and remediation.

## **FortiADC Centralized Management**

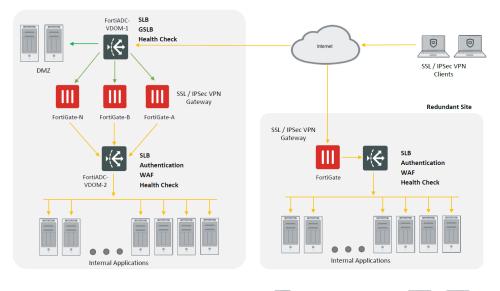
FortiADC Manager is a web-based management tool that allows you to centrally manage multiple FortiADC devices remotely. Network administrators can better control their devices by logically grouping devices, efficiently managing jobs and licenses, quickly checking various logs, and monitoring threat statistics in real time.

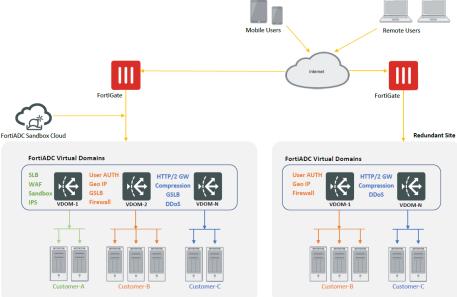


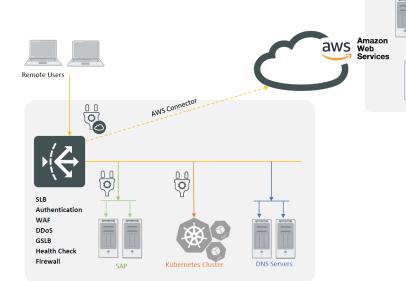
FortiADC Dashboard



## **USE CASES**







# High Scale Performance with FortiADC and FortiGate (FWLB and SSL-VPN / IPSEC LB)

- Improved VPN performance and user QoE
- User redirection based on geolocation and round-trip time (RTT)
- Advanced health checks for applications and NGFW in improved site visibility and availability
- Application Load Balancing and WAF Protection

## MSSP / SP Advanced Offering

- Fully virtualized environment
- Service tailored per customer (SLB, L7, GSLB, WAF, and Application Optimization)
- Can be managed via Single pane of glass (CM, API, and Cisco ACI)
- Fully managed services
- High redundancy

#### **Hybrid Cloud Solution**

- Cloud Connector for visibility and availability
- Fabric Connector to multiple applications for automation and service scaling
- Multi-Service solution (SLB, WAF, Authentication, and GSLB)



## **FEATURES**

## **Application Availability**

- Virtual service definition with inherited persistence, load balancing method, and pool members
- Layer 4/7 application routing policy
- Layer 4/7 server persistence
- Custom scripting for SLB and content rewriting
- Scripting for event-driven rules using predefined commands, variables, and operators for SLB, content rewrite, persistencey, and security
- Advanced L7 application health check with support script for a customized health check
- Clone Traffic Pools

#### **Layer 4-7 Application Load Balancing**

- TCP, UDP, IP, DNS, HTTP, HTTPS, HTTP 2.0 GW, FTP, SIP, RDP, RADIUS, MySQL, MSSQL, RTMP, RTSP, and more applications
- L7 Content Switching and Rewriting
  - HTTP Host, HTTP Request URL, and HTTP Referrer
  - Source IP Address
- Persistent IP, has IP/port, hash header, persistent cookie, hash cookie, destination IP hash, URI hash, full URI hash, host hash, and host domain hash
- URL Redirect, HTTP request/response rewrite (includes HTTP body)
- Layer 7 DNS load balancing, security, and caching

#### **Link Load Balancing**

- Inbound and outbound LLB
- Support for policy route and SNAT
- Multiple health check target support
- Configurable intervals, retries, and timeouts
- Tunnel Routing

#### **Security Fabric Connector**

- FortiGSLB Cloud (One-Click-GSLB)
- FortiAuthentication
- FortiSIEM
- FortiAnalyzer
- FortiADC-CM
- FortiSandbox
- FortiGate BanIP Integration

#### **External Fabric Connectors**

- Kubernetes Service
- SAP Application
- AWS / OCI Connector
- Splunk Integration

#### Global Server Load Balancing (GSLB)

- Global data center DNS-based failover of web applications
- Delivers local and global load balancing between multi-site SSL VPN deployments
- DNSSEC
- DNS Access Control Lists
- GSLB setup wizard

#### **Deployment Modes**

- One arm-mode (Proxy with X-forwarded for support)
- Router mode
- Transparent mode (switch)
- High Availability (AA/AP Failover)

## **Web Application Firewall**

#### **Application Protection**

- OWASP Top-10 Wizard
- Web Attack Signature
- API Protection
- Sensitive Data Protection
- Bot Detection
- Web Vulnerability Scanner
- Third-party scanner integration (virtual patching)
- HTTP RFC compliance

#### **Security Services**

- SQLi/XSS Injection Detection
- OpenAPI Validation
- API Gateway
- Web Scraping
- CSRF Protection
- Brute Force Protection
- Web Defacement Protection
- CAPTCHA Support
- Data Leak Prevention
- File Restriction
- Cookie Security
- XML/JSON/SOAP Validation
- HTTP Header Security



## **FEATURES**

## **Application Acceleration**

#### **SSL Offloading and Acceleration**

- Offloads HTTPS and TCPS processing while securing sensitive data
- Full certificate management features
- HTTP/S mirroring for traffic analyses and reporting
- Support TLS 1.3

#### **HTTP and TCP Optimization**

- 100x acceleration by off-loading TCP processing
- Connection pooling and multiplexing for HTTP and HTTPS
- HTTP Page Speed-UP for Web Server Optimization
- TCP buffering
- HTTP compression and decompression
- HTTP caching (static and dynamic objects)
- Bandwidth allocation with Quality of Service (QoS)

#### **Authentication Offloading**

- Local
- LDAP
- RADIUS
- Kerberos
- SAML 2.0 (SP and Idp)
- AUTH2.0
- NTLM
- Two-Factor Authentication FortiToken/ FortiToken Cloud, and Google Authentication

## **Networking**

- Static NAT, Hide NAT, and Dynamic NAT for flexibility and scalability)
- VLAN and port trunking support
- Support integration with Cisco ACI, Nutanix, OpenStack, and Ansible
- NVGRE and VXLAN Support
- BGP and OSPF with Route Health Inspection (RHI)
- IPv6 Support (SLB, interfaces, routing, and firewall)
- Support SR-IOV VMware and KVM

## **Application Security**

- FortiGuard Antivirus and FortiSandbox integration
- GEO IP security and logs (subscription required)
- Stateful Firewall
- Web Filtering (subscription required)
- IP Reputation (subscription required)
- IPv4 and six firewall rules
- Granular policy-based connection limiting
- Syn cookie protection
- Connection limits
- Intrusion Prevention System (subscription required)
- Application and Network DDoS Protection
- DNS Application Security

## Management

- Central management for multiple FortiADC devices
- REST API
- SNMP with private MIBs with threshold-based traps
- Real-time Data Analytics
- Syslog support
- Role-based administration
- Real-time monitoring graphs
- Built-in reporting
- FortiView integration
- OWASP Top-10 Real-time monitoring
- Data analytics
- Virtual Domains (VDOMs)
- Support Inter-VDOM Connectivity





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	FortiADC 100F	FortiADC 120F	FortiADC 220F	
system Performance				
4/L7 Throughput	1.5 Gbps / 1.3 Gbps	3 Gbps / 2.2 Gbps	5 Gbps / 4 Gbps	
4 CPS	50,000	80,000	160,000	
4 HTTP RPS	150,000	230,000	500,000	
Maximum L4 Concurrent Connection	3 M	4.5 M	6 M	
.7 CPS (1:1) *	15,000	20,000	40,000	
SSL CPS/TPS (1:1) 2K keys **	400	500	1,200	
SL Bulk Encryption Throughput	400 Mbps	500 Mbps	1.2 Gbps	
Compression Throughput	1Gbps	1.3 Gbps	2 Gbps	
SL Acceleration Technology	Software	Software	Software	
'irtual Domains	10	10	10	
lardware Specifications				
Memory	8 GB	8 GB	8 GB	
letwork Interfaces	6x GE RJ45	6x GE RJ45	4x GE RJ45, 4x GE SFP	
0/100/1000 Management Interface	<u> </u>	_	—	
itorage	64 GB SSD	64 GB SSD	120 GB SSD	
/lanagement	HTTPS, SSH CLI, Direct Console DB9 CLI, SNMP	HTTPS, SSH CLI, Direct Console DB9 CLI, SNMP	HTTPS, SSH CLI, Direct Console DB9 CLI, SNMP	
ower Supply	Single	Single	Single	
imultaneous Sources (M)	1U	1U	1U	
imensions				
leight x Width x Length (inches)	1.75 × 17.3 × 10.55	1.75 × 17.3 × 10.55	1.73 × 17.24 × 16.38	
leight x Width x Length (mm)	44 × 440 × 268	44 × 440 × 268	44 × 438 × 416	
Veight	9.9 lbs (4.5 kg)	9.9 lbs (4.5 kg)	22 lb (9.07 kg)	
nvironment				
orm Factor	1U Appliance	1U Appliance	1U Appliance	
nput Voltage	100-240V AC, 50-60 Hz	100-240V AC, 50-60 Hz	100-240V AC, 50-60Hz	
ower Consumption (Average / Maximum)	40 W / 60 W	40 W / 60 W	80W	
Maximum Current	100V / 1.5A, 240V / 0.6A	100V / 1.5A, 240V / 0.6A	100V/6A, 240V/3A	
leat Dissipation	132–163 BTU/h	132–163 BTU/h	273 BTU/h	
perating Temperature	32-104°F (0-40°C)	32-104°F (0-40°C)	32-104°F (0-40°C)	
torage Temperature	-4-167°F (-20-75°C)	-4-167°F (-20-75°C)	-4-167°F (-20-75°C)	
lumidity	10–85% relative humidity, non-operating, non-condensing	10–85% relative humidity, non-operating, non-condensing	5–95% non-condensing	
Compliance				
Regulatory Compliance	FCC Part 15 Class A, RCM, VCCI Class A, CE, UL/c			
Safety	CSA, C/US, CE, UL			



All performance values are "up to" and vary depending on the system configuration.

\* Layer 7 CPS — measures number of new HTTP connections (1 HTTP request per TCP connection)

\*\* Tested with 1 HTTP request per SSL connection; SSL Ciphers=AES256-SHA; 2K Keys







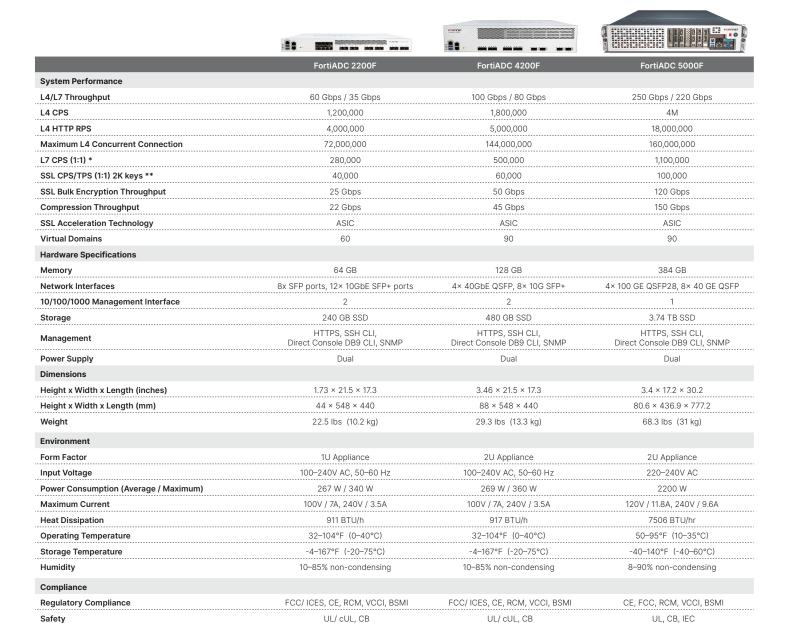
FortiADC 300F	FortiADC 400F	FortiADC 1200F	
8 Gbps	15 Gbps / 12 Gbps	40 Gbps / 30 Gbps	
300,000	400,000	1,000,000	
1M	1.5M	3,000,000	
12M	12M	36,000,000	
100,000	120,000	220,000	
4,000	15,000	35,000	
3 Gbps	6 Gbps	20 Gbps	
6 Gbps	10 Gbps	20 Gbps	
Software	ASIC	ASIC	
10	20	45	
16 GB	32 GB	32 GB	
4x GE RJ45, 4x GE SFP	2× 10 GE SFP+, 4x GE SFP, 4x GE RJ45	8x RJ45 GE port, 8x SFP GE port, 8 SFP+ 10G Ports	
<del>-</del>	_	2	
128 GB SSD	120 GB SSD	240 GB SSD	
HTTPS, SSH CLI, Direct Console DB9 CLI, SNMP	HTTPS, SSH CLI, Direct Console DB9 CLI, SNMP	HTTPS, SSH CLI, Direct Console DB9 CLI, SNMP	
Single	Single (optional Redundant PS)	Dual	
1.73 × 17.24 × 16.38	1.73 × 17.24 × 16.38	1.73 × 21.5 × 17.3	
44 × 438 × 416	44 × 438 × 416	44 × 548 × 440	
20 lbs (9.07 kg)	20 lbs (9.07 kg)	22.5 lbs (10.2 kg)	
1U Appliance	1U Appliance	1U Appliance	
100-240V AC, 50-60 Hz, 5-3A	100-240V AC, 50-60 Hz, 5-3A	100-240V AC, 50-60 Hz	
90 W / 99 W	114 W / 137 W	251 W / 320 W	
100-240V AC / 6-3A, 50/60 Hz	100-240V AC, 50-60 Hz, 5-3A	120V / 7.1A, 240V / 3.5A	
337.8 BTU/h	467.4 BTU/h	856 BTU/h	
32-104°F (0-40°C)	32-104°F (0-40°C)	32-104°F (0-40°C)	
-13-167°F (-25-75°C)	-13-167°F (-25-75°C)	-4-167°F (-20-75°C)	
5–95% non-condensing	5–95% non-condensing	10-85% non-condensing	
ECC Part 15 Class A R	CM_VCCLClass A_CF_LIL/c		
	8 Gbps 300,000  1M 12M 100,000 4,000 3 Gbps 6 Gbps Software 10  16 GB 4x GE RJ45, 4x GE SFP — 128 GB SSD HTTPS, SSH CLI, Direct Console DB9 CLI, SNMP Single  1,73 × 17.24 × 16.38 44 × 438 × 416 20 lbs (9.07 kg)  1U Appliance 100-240V AC, 50-60 Hz, 5-3A 90 W / 99 W 100-240V AC / 6-3A, 50/60 Hz 3378 BTU/h 32-104°F (0-40°C) -13-167°F (-25-75°C) 5-95% non-condensing	8 Gbps	



All performance values are "up to" and vary depending on the system configuration.

\* Layer 7 CPS — measures number of new HTTP connections (1 HTTP request per TCP connection)

\*\* Tested with 1 HTTP request per SSL connection; SSL Ciphers=AES256-SHA; 2K Keys





UL, CB, IEC

Safety

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\*\* Tested with 1 HTTP request per SSL connection; SSL Ciphers=AES256-SHA; 2K Keys

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	FORTIADC-VM01	FORTIADC-VM02	FORTIADC-VM04	FORTIADC-VM08	FORTIADC-VM16	FORTIADC-VM32
Hardware Specifications						
Hypervisor Support	VMware ESX/ESXi, Citrix XenServer, Open Source Xen, Microsoft Hyper-V, KVM, AWS, Azure, Google Cloud, Oracle Cloud. Please see the FortiADC-VM Install Guide for the latest hypervisor versions supported.					
L4 Throughput*	1 Gbps	2 Gbps	4 Gbps	10 Gbps	16 Gbps	24 Gbps
Virtual Domains	10	10	10	10	15	20
vCPU Support (Maximum)	1	2	4	8	16	32
Memory Support (Maximum)	Unlimited					
Network Interface Support (Maximum)	10	10	10	10	10	10
Storage Support (Minimum / Maximum)	Unlimited					
Throughput	Hardware Dependent					
Management	HTTPS, SSH CLI, Direct Console DB9 CLI, SNMP					

<sup>\*</sup> Actual performance values may vary depending on the network traffic and system configuration. Performance results were observed using an appliance with an Intel CPU E5-1650 v2 @ 3.50 GHz running VMware ESXI 5.5.



## **ORDER INFORMATION**

Product	SKU	Description
FortiADC 100F	FAD-100F	FortiADC 100F, 6x GE ports, 1× 64 GB SSD storage.
FortiADC 120F	FAD-120F	FortiADC 120F, 6x GE ports, 1×64 SSD storage.
FortiADC 220F	FAD 220F	FortiADC 220F, 4x GE RJ45 ports, 4x GE SFP ports, 1× 120 GB SSD storage.
FortiADC 300F	FAD-300F	FortiADC 300F, 4x GE RJ45 ports, 4x GE SFP ports, 2x GE management ports, 1× 128 GB SSD storage.
FortiADC 400F	FAD-400F	FortiADC 400F, 4x GE RJ45 ports, 4x GE SFP ports, 2× 10 GE SFP+ ports, 2x management ports, 1× 120 GB SSD storage, Hardware SSL Accelerator, Optional Redundant PSU.
FortiADC 1200F	FAD-1200F	FortiADC 1200F, 8×10 GE SFP+ ports, 8x GE SFP ports, 8x GE RJ45 ports, 2x GE RJ45 management port, 1× 240 GB SSD, dual AC power supplies.
FortiADC 2200F	FAD-2200F	FortiADC 2200F, 12× 10 GE SFP+ ports, 8x GE SFP ports, 2x GE RJ45 management port, 1× 240 GB SSD, dual AC power supplies.
FortiADC 4200F	FAD-4200F	FortiADC 4200F, $4 \times 40$ GbE QSFP+, $8 \times 10$ GbE SFP+, $2 \times 6$ GbE RJ45 management port, $1 \times 480$ GB SSD, dual AC power supplies.
FortiADC 5000F	FAD-5000F	FortiADC 5000F, 4× 100 GE QSFP28, 8× 40 GE QSFP, 1x GE RJ45 management port, 1× 3.74 TB SSD, dual AC power supplies.
FortiADC-VM01	FAD-VM01	FortiADC-VM software virtual appliance. Supports up to 1x vCPU core.
FortiADC-VM02	FAD-VM02	FortiADC-VM software virtual appliance. Supports up to 2x vCPU cores.
FortiADC-VM04	FAD-VM04	FortiADC-VM software virtual appliance. Supports up to 4x vCPU cores.
FortiADC-VM08	FAD-VM08	FortiADC-VM software virtual appliance. Supports up to 8x vCPU cores.
FortiADC-VM16	FAD-VM16	FortiADC-VM software virtual appliance. Supports up to 16x vCPU cores.
FortiADC-VM32	FAD-VM32	FortiADC-VM software virtual appliance. Supports up to 32x vCPU cores.
Central Manager 10	FAD-CM-BASE	FortiADC Central Manager license key, manage up to 10 FortiADC devices, VMware vSphere.
Central Manager Unlimited	FAD-CM-UL	FortiADC Central Manager license key, manage unlimited number of FortiADC devices, VMware vSphere.
Optional Accessory	SKU	Description
FortiADC 400F Redundant Power Supply	SP-FAD400F-PS	AC power supply for FAD-400F.
VM Subscriptions	SKU	Description
FortiADC-VM01-S Standard	FC1-10-ADVMS-942-02-DD	Subscription license for FortiADC-VM (1 CPU) with Standard bundle. 24×7 FortiCare support included.
FortiADC-VM01-S Advanced	FC1-10-ADVMS-635-02-DD	Subscription license for FortiADC-VM (1 CPU) with Advanced bundle. 24×7 FortiCare support included.
FortiADC-VM02-S Standard	FC2-10-ADVMS-942-02-DD	Subscription license for FortiADC-VM (2 CPU) with Standard bundle. 24×7 FortiCare support included.
FortiADC-VM02-S Advanced	FC2-10-ADVMS-635-02-DD	Subscription license for FortiADC-VM (2 CPU) with Advanced bundle. 24×7 FortiCare support included.
FortiADC-VM04-S Standard	FC3-10-ADVMS-942-02-DD	Subscription license for FortiADC-VM (4 CPU) with Standard bundle. 24×7 FortiCare support included.
FortiADC-VM04-S Advanced	FC3-10-ADVMS-635-02-DD	Subscription license for FortiADC-VM (4 CPU) with Advanced bundle. 24×7 FortiCare support included.
FortiADC-VM08-S Standard	FC4-10-ADVMS-942-02-DD	Subscription license for FortiADC-VM (8 CPU) with Standard bundle. 24×7 FortiCare support included.
FortiADC-VM08-S Advanced	FC4-10-ADVMS-635-02-DD	Subscription license for FortiADC-VM (8 CPU) with Advanced bundle. 24×7 FortiCare support included.
FortiADC-VM16-S Standard	FC5-10-ADVMS-942-02-DD	Subscription license for FortiADC-VM (16 CPU) with Standard bundle. 24×7 FortiCare support included.
FortiADC-VM16-S Advanced	FC5-10-ADVMS-635-02-DD	Subscription license for FortiADC-VM (16 CPU) with Advanced bundle. 24×7 FortiCare support included.
FortiADC-VM32-S Standard	FC6-10-ADVMS-942-02-DD	Subscription license for FortiADC-VM (32 CPU) with Standard bundle. 24×7 FortiCare support included.
FortiADC-VM32-S Advanced	FC6-10-ADVMS-635-02-DD	Subscription license for FortiADC-VM (32 CPU) with Advanced bundle. 24×7 FortiCare support included.



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