SANGFOR

2023 ASIA-PACIFIC NEXT-GENERATION FIREWALL COMPANY OF THE YEAR

Sangfor Technologies RECOMMENDED

Gartner

Visionary in 2022 Gartner® Magic Quadrant™ for Network Firewalls

SANGFOR Athena NGFW

NSF-1060A-I

Sangfor Athena NGFW (previously known as Sangfor Network Secure) is the world's first next-generation firewall that combines the latest AI Technology, Cloud Threat Intelligence, NG-WAF, IoT Security, and SOC Lite.

Experience unrivaled protection, simplified management, and effortless operation with Sangfor Athena NGFW

Performance	NSF-1060A-I
Firewall Throughput [1,2]	20Gbps
Application Control Throughput (Enterprise Mix) [1,3]	6Gbps
IPS Throughput (Enterprise Mix) [1]	2.6Gbps
NGFW Throughput (Enterprise Mix) [1,4]	2.6Gbps
Threat Prevention Throughput (Enterprise Mix) [1,5]	1.7Gbps
Web Application Protection Throughput (Enterprise Mix) [1,6]	650Mbps
IPsec VPN Throughput [1,7]	1.8Gbps
Max IPsec VPN Tunnels	100
Recommended Maximum SSL VPN Users	90
Concurrent Connections	1,000,000
New Connections/Sec	90,000
Virtual Domains (Recommended/Max)	1/1

Hardware Specifications	NSF-1060A-I
Form Factor	Desktop
RAM	4GB
Storage	128GB SSD
Power Supply Type	Single AC
Power Input	100-240V, 50/60Hz
Power Consumption (Average)	18W
Power Consumption (Max)	24W
Operating Temperature	0°C – 45°C
Humidity	5% - 90% non-condensing
System Weight	2.7kg
Length x Width x Height (mm)	175 x 275 x 44.5
Certificates	CE, FCC, ROHS

Interface & IO	NSF-1060A-I
Hardware Bypass (Copper)	N/A
10/100/1000Mbps Base-T	8 (Fixed onboard)
1G SFP	N/A
10G SFP+	2 (Fixed onboard)
40G QSFP+	N/A
Network Slots (In Use/Total)	N/A
Dedicated Management Interface	1 (Fixed onboard)

Interface & IO	NSF-1060A-I
Optional Interface Card	N/A
Serial Port	1 x RJ45
USB Port	2

Remarks

1. All throughput performance data is measured under laboratory conditions with firmware version 8.0.107. Actual performance may vary based on configuration and network environment.

2. Firewall Throughput is measured with 1518 Bytes UDP packets.

3. Application Control throughput is measured with Firewall and Application Control enabled.

4. NGFW Throughput is measured with Firewall, Application Control, and IPS enabled.

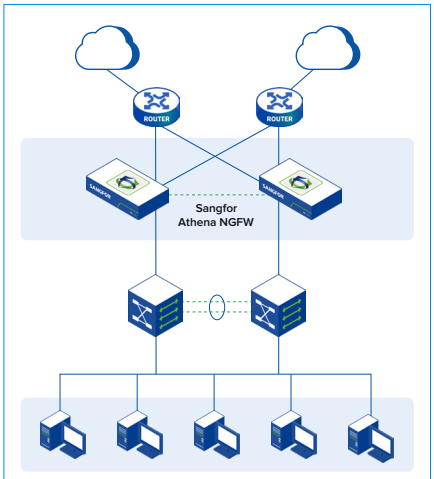
5. Threat Prevention Throughput is measured with Firewall, Application Control, IPS, and Anti-Virus enabled.

6. Web Application Protection Throughput is measured with Firewall, Application Control, IPS, and WAF enabled.

7. IPsec VPN Throughput includes Sangfor-to-Sangfor device connection and Sangfor-to-3rd party device connection scenarios with 512 Byte packets.

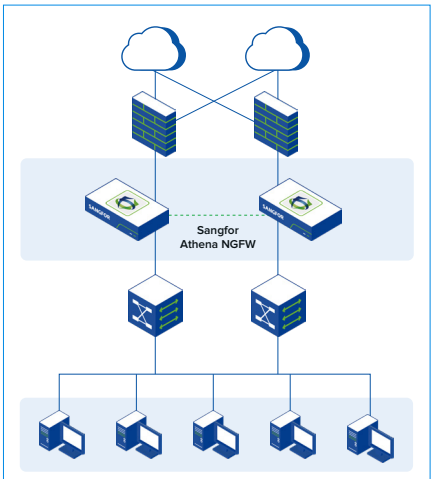
8. All pictures shown are for illustration purpose only. Actual product may vary.

Key Scenarios



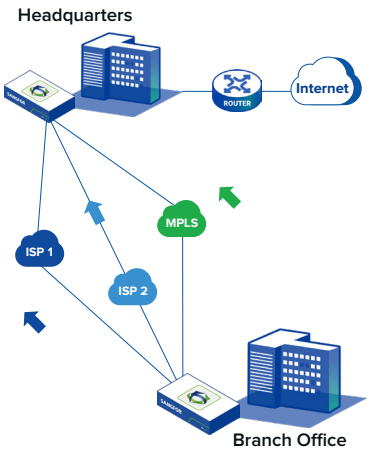
Network Protection

- AI, Threat Intelligence & WAF
- Complete asset & threats visibility
- Auto threat mitigation
- Avoid misconfigurations



2nd-Tier Firewall

- Extra layer of protection
- Effortless deployment
- No configuration changes
- Built-in hardware bypass



Secure SD-WAN

- Boost network agility
- Guarantee business continuity
- Strengthen security control
- Reduce TCO

Feature List

Networking & Deployment

- Deployment Modes: Routed Mode (Layer 3), Transparent/Bridge Mode (Layer 2), Virtual Wire Mode, Bypass Mode, Hybrid Mode
- IPv6-Ready: IPv4, IPv6, or IPv4/IPv6 dual-stack deployment
- Interfaces: Physical, VLAN (802.1Q tagging & trunking), Sub-interface, Loopback
- PPPoE Support: Physical interfaces and sub-interfaces
- Interface Definition: Define interfaces as WAN, LAN, DMZ without hardware constraints
- Supports GRE and GRE tunneling
- Interface Aggregation: LACP Mode and Static Mode (Round Robin, Hash, and Active-Standby)
- Link Health Detection: ARP, DNS, Ping, BFD
- Jumbo Frame: Supported on physical interfaces
- Customizable network and security zones
- DHCP Features: DHCP, DHCPv6, DHCP & DHCPv6 relay, IP reservation (IPv4 & IPv6)
- DNS Capabilities: DNS proxy, DNS transparent proxy, DNS64, DDNS
- ARP Proxy
- Static routing, policy-based routing, multicast routes, reverse path forwarding, ECMP
- Policy Routing: By source/destination IP, ISP, country/region service, application type
- Link Load Balancing: Round robin, bandwidth ratio, weighted least traffic, priority link
- Protocols: RIPv1/v2, RIPNG, OSPFv2/v3, BGP/BGP4+
- Supports route redistribution
- OSPF supports access list and route maps, graceful restart
- Supports route testing to verify the routing result
- Displays routing table on GUI
- NAT Features: SNAT, DNAT, Bidirectional NAT/PAT (Modes 1:1, 1:N, N:1, M:N), NAT64, NAT46, NAT66, DNS-mapping
- Application Layer Gateways (ALG): FTP, RTSP, SQLNET, PPTP, TFTP, H.323, SIP
- High Availability Features: Active-Active(Layer 2 mode), Active-Standby, Hardware Bypass

IPsec VPN

- Supports: Sangfor VPN, IPsec VPN
- Site-to-site IPsec VPN (static IP, dynamic IP, dynamic domain)
- IKEv1 and IKEv2
- Support policy-based and route-based IPsec VPN
- IPsec protocols: AH and ESP
- Supports main mode and aggressive mode
- Authentication methods: pre-shared key and certificate
- Local & peer ID: IP address, Domain String(FQDN), User String(USER_FQDN)
- DH Group & Perfect Forward Secrecy: group1(MODP1024), group2(-MODP768), group5(MODP1536), group14(MODP2048), group15(MODP3072), group16(MODP4096), group17(MODP6144), group18(MODP8192), group19(ECP256), group20(ECP384), group21(ECP512), group22(-MODP1024_160), group23(MODP2048_224), group24(MODP2048_256), group25(ECP192), group26(ECP224), group27(ECP224_BP), group28(ECP256_BP), group29(ECP384_BP), group30(ECP512_BP).
- IPsec encryption algorithms: DES, 3DES, AES/AES128, AES192, AES256, Sangfor_DES
- IPsec authentication algorithms: MD5, SHA1, SHA256, SHA384, SHA512
- NAT-T, DPD
- Support SM2, SM3, and SM4
- Supports setup expiration time of IPsec VPN tunnels
- Supports VPN tunnel auto rebuild during heartbeat failure or HA failover
- VPN tunnel status monitoring, including traffic, latency, packet loss, etc.
- Configuration wizard for Sangfor VPN or IPsec VPN

SSL Decryption

- SSL/TLS inspection: Outbound traffic to the Internet and inbound traffic to application servers
- TLS 1.3 decryption

Feature List

SSL VPN

- Supports SSL VPN in CS (client-server) mode
- SSL VPN works in split tunnel mode
- Hash Algorithms: MD5, SHA1, SHA256, SHA384, SHA512
- Encryption algorithms: DES, 3DES, AES/AES128, AES192, AES256, Sangfor_DES.
- Protocols: TCP, UDP, ICMP
- Browser Compatibility: IE, Edge, Firefox, Chrome, etc.
- OS Compatibility: Windows, macOS 10.x to macOS 14,etc
- Authentication: Primary authentication (local/LDAP), secondary authentication (hardware ID, TOTP with Google/Microsoft authenticators)

SD-WAN & Central Management

- Dynamic Path Selection: Based on custom SLAs (jitter, latency, packet loss), bandwidth, application type
- Application categorization by type to meet different SLA requirements
- SOFAST Engine: Link optimization in high packet loss environments
- SD-WAN tunnel failover and link failover
- Zero-touch provisioning via email template
- Map view of device location
- Centralized management with Sangfor Central Manager
- Centralized monitoring of device status, CPU/RAM/disk usage, traffic
- Centralized remote control of devices
- Centralized security policy distribution
- Centralized VPN deployment and configuration

Bandwidth Management

- Manage bandwidth by application, user/group, IP address, schedule, country/region, sub-interface, VLAN interface, VPN tunnel
- Bandwidth Control: Bandwidth guarantee, bandwidth limit, upload & download speed, speed for single IPs

Access Control & Authentication

- Stateful Packet Inspection (Stateful Firewall)
- Deep Packet Inspection (DPI): Identifies applications to allow/deny access
- Built-in Application Signature Database: Over 9,000 signatures, including P2P, IM, gaming, video streaming, email, proxy apps
- "From top to bottom, first match basis" method
- Access control based on source/destination IP, source/destination zone, source port, FQDN, MAC, User, service, applications, schedule, etc.
- Supports persistent connections
- Supports matching count for access control policies
- Policy optimizer: One-click to identify abnormalities in access control policies, including redundancy, duplication, and conflicts
- Automatically records the access control policy lifecycle
- Geolocation blocking: Allow/deny access from certain countries/regions
- Connection control based on source IP, destination IP, bidirectional IP
- User authentication: Captive portal, MAC/IP address binding, or Single Sign-On (SSO)
- Authentication with LDAP, RADIUS, POP3. Supports user imports via CSV file
- Single-Sign-On (SSO) with Microsoft AD, RADIUS, Web, etc.
- HTML-based customizable captive portal

ARP, Spoofing, DoS/DDoS Attack Protection

- DoS/DDoS attack protection for both the network and the device itself
- SYN flood, ICMP flood, ICMPv6 flood, UDP flood, DNS flood, ARP flood prevention
- IP scan and port scan prevention
- Packet-based attack prevention, e.g., TearDrop Attack, IP fragment attack, ICMP fragment attack, LAND attack, WinNuke attack, Smurf attack, Ping of Death, Unknown protocol
- Bad IP option, Bad TCP option prevention
- ARP Spoofing Protection, IP Spoofing Protection

Content Security

- URL filtering with a built-in URL signature database
- Supports customized URL signatures
- File filtering in both upload and download directions. Supported file types include pictures, text files, compressed files, and executables
- Gateway malware inspection: Cloud-based Sangfor Neural-X (threat intelligence, sandbox) and on-premises Sangfor Engine Zero (AI malware inspection engine). Able to prevent known and unknown threats
- Malware inspection supports protocols like HTTP, HTTPS, FTP, SMB, SMTP, POP3, IMAP
- Malware inspection supports file types including movies, music, image, text, compressed files (up to 16 layers), executables, documents, scripts
- Remove malware from detected malicious files
- Whitelist based on MD5 and URL
- In-depth inspection of email body and attachments
- Inserts warning messages into email subjects to caution users against opening malicious emails

Web Application Firewall (WAF)

- Dedicated web application protection with a semantic detection engine, not with IPS
- Supports custom WAF rules
- Detects and protects against 13 major types of attacks, including SQL injection, XSS, web shells, CSRF, system command injection
- Protection against the OWASP Top 10 web application security risks
- Defense against buffer overflow attacks, including URL length overflow, HTTP header overflow, POST entity overflow
- CC (Challenge Collapsar) attack prevention
- XXE (XML External Entity) attack prevention
- Detect HTTP request anomalies
- Prevent cookie-based attacks
- Cloud Intelligence: for the latest IP reputation and IP blacklist data
- Real-time Web Vulnerability Scanner: Analyzes web application vulnerabilities in passive mode and generates reports in HTML format
- Application Hiding: Prevent targeted attacks with the feedback information from the applications
- Weak password detection and brute-force attack prevention
- Restrict upload of blacklisted file types
- Specify access privileges for sensitive URLs such as the admin page

Feature List

APT Protection & Intrusion Prevention System (IPS)

- Malicious Domain & URL Detection
- Remote Access Trojan (RAT) Detection
- Suspicious Traffic Detection: Discover abnormal behavior on standard ports
- Vulnerability Exploit Protection: Protect against vulnerability exploits targeting systems, applications, middleware, databases, explorer, Telnet, DNS, and more
- Brute-Force Attacks: Protection profiles for SSH, Telnet, RDP, NTLM, FTP, etc.
- Botnet Detection: Detect botnet client communication, include DNS tunneling, ICMP tunneling, HTTP tunneling, DGA communication etc.
- Correlate with Sangfor Endpoint Secure to detect hidden botnet activity
- Cloud-based analysis engine for enhanced detect
- Dedicated protection profiles for client & server scenarios
- Supports custom IPS rules

IoT Security

- Detect IoT devices across the network through proactive scans and traffic learning
- Detected IoT devices are presented as an asset list
- Support Spoofed Access detection & control via IP, MAC, and Device Type
- Dedicated IoT IPS signature database

SOC Lite

- Proactive asset detection and guidance for fixing potential risks
- Business System & Client Threats Dashboard: Monitor and manage threats to business systems and clients, including severity levels, threat types, kill-chain steps, top security events
- Ransomware Protection Dashboard: Detect and manage ransomware-related risks such as weak passwords, risky ports, etc. Helps administrators create ransomware protection policies
- Account Security Dashboard: Detect account-related threats, including weak passwords, abnormal login activity, brute-force attacks, compromised accounts
- Whitelist & Blacklist
- Built-in product integration with Sangfor Athena EPP, Access Secure, MDR, XDR and more

Certifications

- CE, FCC, RoHS
- ICSA Firewall, Gartner Magic Quadrant, CyberRatings

Logging & Reporting

- Built-in log and report center available by default for all hardware models
- Records logs to local disk including access control logs, session logs, traffic audit logs, user authentication logs admin operation logs, SSL VPN logs, local ACL logs.
- Traffic/session monitoring by device, application, IP, interface
- Displays traffic rankings by user/IP, group, application type & application category.
- Options for daily, weekly, or monthly security report subscriptions
- Supports security reports in PDF format
- Supports syslog in Common Event Format
- Supports sending syslog to multiple target servers

Management

- Support manage via WebUI, SSH, CLI, serial port etc.
- WebUI supports TLS1.0, TLS1.1, TLS1.2, TLS1.3
- Supports role-based authorization for admin users. Default roles include security admin, system admin, and audit admin
- Admin user supports local password, TACACS server, and RADIUS server
- Automatic or manual configurations backup
- Backup configuration file to FTP, TFTP & SFTP by schedule
- Out-of-Band Management (OOBM)
- Time setting supports synchronization with local PC and NTP servers
- Firmware version rollback
- SNMP v1/v2c/v3, SNMP trap
- Email alerts for hardware abnormality, resource usage, security event, HA status, etc.
- Troubleshooting via WebUI; Identify packet drop reasons by policy, interface, etc.

Integration

- Sangfor Neural-X: Latest threat intelligence, cloud-based URL/App classifications, etc.
- Sangfor Athena EPP: Share intelligence and locate and mitigate malicious processes with quick/full scan and one-click kill
- Sangfor Athena NDR: Security log analysis, event response
- Sangfor Athena XDR: Security log & meta data analysis, event response
- Sangfor Athena MDR: Security log & meta data analysis, event response
- Sangfor Platform-X: Centralized management
- RESTful APIs available to integrate with third-party SIEM, SOC, etc.

Remarks

** All the features above are based on Athena NGFW firmware version 8.0.107 and higher*

Ordering Guide

Sangfor Athena NGFW Hardware	
SKU	**Description**
NSF1060A	NSF-1060A-I Hardware Appliance. 8 x GE RJ45, 2 x 10G SFP+, 128GB SSD. Single AC Power Supply.

Sangfor Athena NGFW Bundle Subscription	
SKU	**Description**
ESS-1060A-1Y/2Y/3Y/5Y	NSF-1060A-I, Essential Bundle (SSL VPN, Site-to-Site IPsec VPN, Secure SD-WAN, Stateful Firewall, Bandwidth Management, URL Filtering, Application Control, IPS, Botnet Prevention, Email Security, SOC Lite, Basic Security Reporter).
PM-1060A-1Y/2Y/3Y/5Y	NSF-1060A-I, Premium Bundle(SSL VPN, Site-to-Site IPsec VPN, Secure SD-WAN, Stateful Firewall, Bandwidth Management, URL Filtering, Application Control, IPS, Botnet Prevention, Email Security, SOC Lite, Basic Security Reporter, Engine Zero, Neural-X).
ULT-1060A-1Y/2Y/3Y/5Y	NSF-1060A-I, Ultimate Bundle including Premium Bundle(SSL VPN, Site-to-Site IPsec VPN, Secure SD-WAN, Stateful Firewall, Bandwidth Management, URL Filtering, Application Control, IPS, Botnet Prevention, Email Security, SOC Lite, Basic Security Reporter, Engine Zero, Neural-X) & Basic device management & Complimentary 30 units of Endpoint Secure Protect Agents with one Endpoint Secure manager.
SDWE-1060A-1Y/2Y/3Y/5Y	NSF-1060A-I, Secure SD-WAN Essential bundle (SSL VPN, Site-to-Site IPsec VPN, Stateful Firewall, Bandwidth Management, URL Filtering, Application Control, IPS, Botnet Prevention, Email Security, SOC Lite, Basic Security Reporter, SD-WAN, 1 x central management branch access license).
SDWP-1060A-1Y/2Y/3Y/5Y	NSF-1060A-I, Secure SD-WAN Premium bundle (SSL VPN, Site-to-Site IPsec VPN, Stateful Firewall, Bandwidth Management, URL Filtering, Application Control, IPS, Botnet Prevention, Email Security, SOC Lite, Basic Security Reporter, Engine Zero, Neural-X, SD-WAN, 1 x central management branch access license).

Sangfor Athena NGFW A-La-Carte Subscription	
SKU	**Description**
FNX-1060A-1Y/2Y/3Y/5Y	NSF-1060A-I, Neural-X License, Threat Intelligence & Analytics, Unknown Threat & Advanced Threat Defense, Value-Added Cloud Service.
FEZ-1060A-1Y/2Y/3Y/5Y	NSF-1060A-I, Engine Zero License, AI-Powered Malware Detection, Anti-Malware, Anti-Virus.
WAFL-1060A-1Y/2Y/3Y/5Y	NSF-1060A-I, Web Application Firewall Module, support Signature-based protection, Semantic Engine, Application Hiding, HTTP Anomalies Detection, Vulnerability Scanner, Advanced Security Reporter.
SDWL-1060A-1Y/2Y/3Y/5Y	NSF-1060A-I, Secure SD-WAN License, support SD-WAN path selection, Sangfor SOFAST packet loss optimization engine and 1 x central management branch access(BBCAL-1D)

Sangfor Athena NGFW Hardware & Software Service	
SKU	**Description**
SUS-1060A-1Y/2Y/3Y/5Y	NSF-1060A-I, Software Upgrade Services.
TSS-1060A-1Y/2Y/3Y/5Y	NSF-1060A-I, 24x7 Technical Support Services.
HRTF-1060A-1Y/2Y/3Y/5Y	NSF-1060A-I, Return to Factory (5 Business Days Shipment after Receipt) Hardware Service.
HSDS-1060A-1Y/2Y/3Y/5Y	NSF-1060A-I, Athena NGFW, Same Day Shipment Hardware Service.
HNBD-1060A-1Y/2Y/3Y/5Y	NSF-1060A-I, Athena NGFW, Next Business Day Delivery Hardware Service.
H244G-1060A-1Y/2Y/3Y/5Y	NSF-1060A-I, 24x7x4 Delivery Hardware Service.

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