## BENEFITS

Alleviate concerns over loss of revenue, loss of customers, damage to brand, service availability and theft of vital data

Reduce operating expenses and free up valuable IT security personnel

## KEY FEATURES

- **Industry-leading Accuracy**
  Filters malicious traffic to ensure only legitimate traffic reaches your infrastructure
- **Best-in-Class Performance**
  Provides advanced DDoS protection for any size organization
- **Scalable Architecture**
  In-line and out-of-path deployment options to meet the needs of any size environment
- **Multi-Layered Security**
  Network, application and web application security designed to respond to modern-day DDoS attacks

NSFOCUS

# Anti-DDoS System (ADS)

## Overview

**Today's DDoS attacks are more frequent, complex, and destructive than ever. They often result in loss of revenue, loss of customers, damage to brand, reduced availability of services, and theft of vital data. The NSFOCUS ADS provides comprehensive, multi-layered protection from today's advanced DDoS threats. The ADS includes technology powered by internationally-recognized research labs and developed with over 10 years of experience protecting the world's largest banks, telecommunications, gaming, and social media companies. It uses an innovative, multi-stage approach to monitor, detect, and mitigate the most complex DDoS attacks. This ensures only legitimate traffic reaches important network and application resources, protecting uptime and managing risks associated with DDoS.**

## Monitor

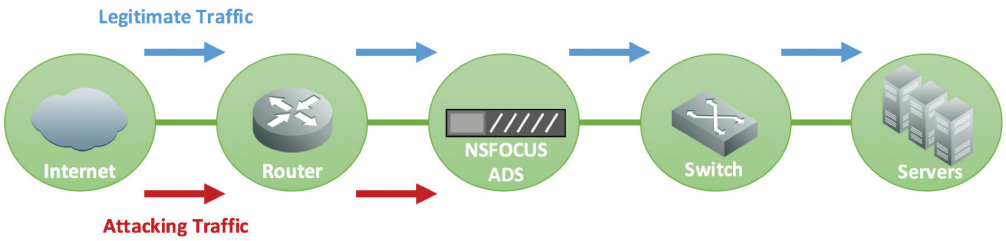
The ADS is easily deployed in any network and can scale to support hundreds of Gbps of inspected traffic. It monitors in real-time and supports the full suite of IP protocols necessary to ensure complete network visibility.

## Detect

At the heart of the ADS is an innovative, multi-stage detection engine. All packets are subjected to a series of algorithms and other defense mechanisms to accurately identify malicious traffic. These include RFC Checks, Protocol Analysis, Access Control Lists, IP Reputation, Anti-spoofing, L4-L7 Algorithmic Analysis, User Behavior Analysis, Regular Expressions, and Connection/Rate Limiting. Together they provide industry-leading accuracy that protects against both known and zero-day threats. The detection engine is optimized frequently, so you always have the most accurate protection available.

## Mitigate

Once malicious traffic has been identified by the ADS, it is removed, and the system forwards only legitimate traffic to its intended destination. Extensive reporting of DDoS attacks in real-time provides valuable information such as attack types, source/destination IPs, protocols, and more. An integrated web services API can also be used to assist with post-incident forensic analysis, compliance efforts, and automated configuration.




## Performance. Quality. Value.

The ADS System is the ideal solution for today's advanced and evolving threats. Available in a range of cost and performance optimized appliances, they have been purpose-built to deliver high quality security for organizations of any size.

## NSFOCUS Hybrid DDoS Protection Solution

Many organizations utilize a hybrid approach to defeat the damaging effects of DDoS attacks. The approach combines NSFOCUS on-premises defenses with on-demand NSFOCUS Cloud DDoS Protection. Working in unison, the solution eliminates smaller/shorter attacks on-premises; while defending infrastructures against bandwidth saturating DDoS attacks using the cloud. Both defenses are fully integrated resulting in increased bandwidth visibility, reduced cloud redirect times for mitigation, and coverage for all L3-L7 DDoS attack vectors.

## Software Specifications

**• DDoS Protection**

- Comprehensive, multi-layered protection against volumetric, application, and web application attacks
- Multi-protocol support and advanced inspection including TCP, UDP, HTTP, ICMP, NTP, DNS, SIP, fragments, flooding, connection exhaustion, header manipulation, and more

**• DDoS Protection and Mitigation Algorithms**

- RFC Checks, Protocol Analysis, Access Control Lists, IP Reputation, Anti-spoofing, L4-L7 Algorithmic Analysis, User Behavior Analysis, Regular Expressions, and Connection/Rate Limiting.
- Protect against both known and zero-day threats

**• Management**

- Protocols: HTTP, SNMP, Email, Syslog
- Authentication: Local database, Radius, TACACS+
- API: web services for reporting and automated configuration

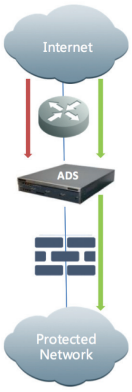
**• IP Protocols**

- Addressing: IPv4/v6
- Routing: BGP, OSPF, RIP, IS-IS, static routing and PBR
- Data link and network layer: MPLS, GRE, VLAN (802.1q)

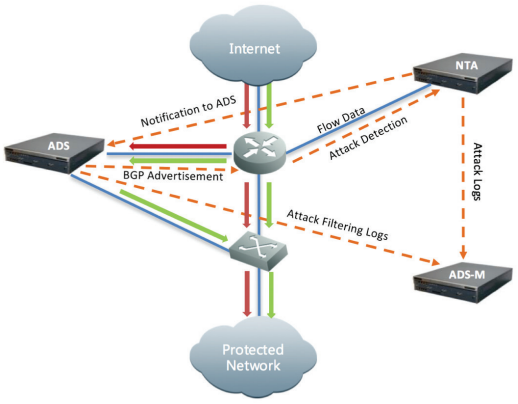
**• Reporting**

- Real-time and historical reporting of attack types, source/destination IP, and more
- Formatting: XML, PDF, HTML, and Microsoft Word
- Web services API for forensics and compliance initiatives

## Deployment Options




Inline Mode




Out-of-path Traffic Diversion

| Hardware | ADS 8000 | ADS 6025 | ADS 4020 | ADS 2020 |
|---|---|---|---|---|
| Mitigation Capacity | 40 Gbps *<br>29,760,000 pps | 20 Gbps *<br>14,880,000 pps | 10 Gbps<br>8,928,000 pps | 4 Gbps<br>2,976,000 pps |
| Interfaces | 8x10GE (SFP+) | 4x10GE (SFP+)<br>or<br>4x10GE (SX fiber) | 16xGE (copper) or 16xGE (SX fiber) or 12xGE (SFP) or 4x10GE (SFP+) or 4x10GE (SX fiber) or 2x10GE(SX fiber) and 8xGE(SX fiber) or 2x10GE (SFP+) and 8xGE(SFP) | 4xGE (copper)<br>or<br>4xGE (SX fiber) and 4xGE (copper) |
| Dimensions (WxDxH) | 24.7"x17.4"x3.5"<br>2 RU | 22.6"x17"x3.5"<br>2 RU | | |
| Weight | 36.49 lbs (16.55 kg) | 24.25 lbs (11 kg) | | |
| Environmental | Operating:<br>41-104° F (5-40° C)<br>Storage: 14-158° F<br>(-10-70° C) | Operating: 32-104° F, (0-40° C)<br>Storage: -4-176° F, (-20-80° C) | | |
| Power | AC or DC Dual Power Supply (450W total) | AC or DC Dual Power Supply (350W total) | | |
| MTBF | 45,000 hours | | | |

DOCUMENT NUMBER 01062016

NSFOCUS

2520 Mission College Blvd, Suite 130
Santa Clara CA 95054
Phone: 1 408-907-6638
www.nsfocusglobal.com