

NetFlow Analyzer

Advanced Security Analytics

Starts at
\$ 595

**Bring zero- day security threats to light
and keep your network threat-free!**

**Embrace holistic security assessment
and proactive decision making**

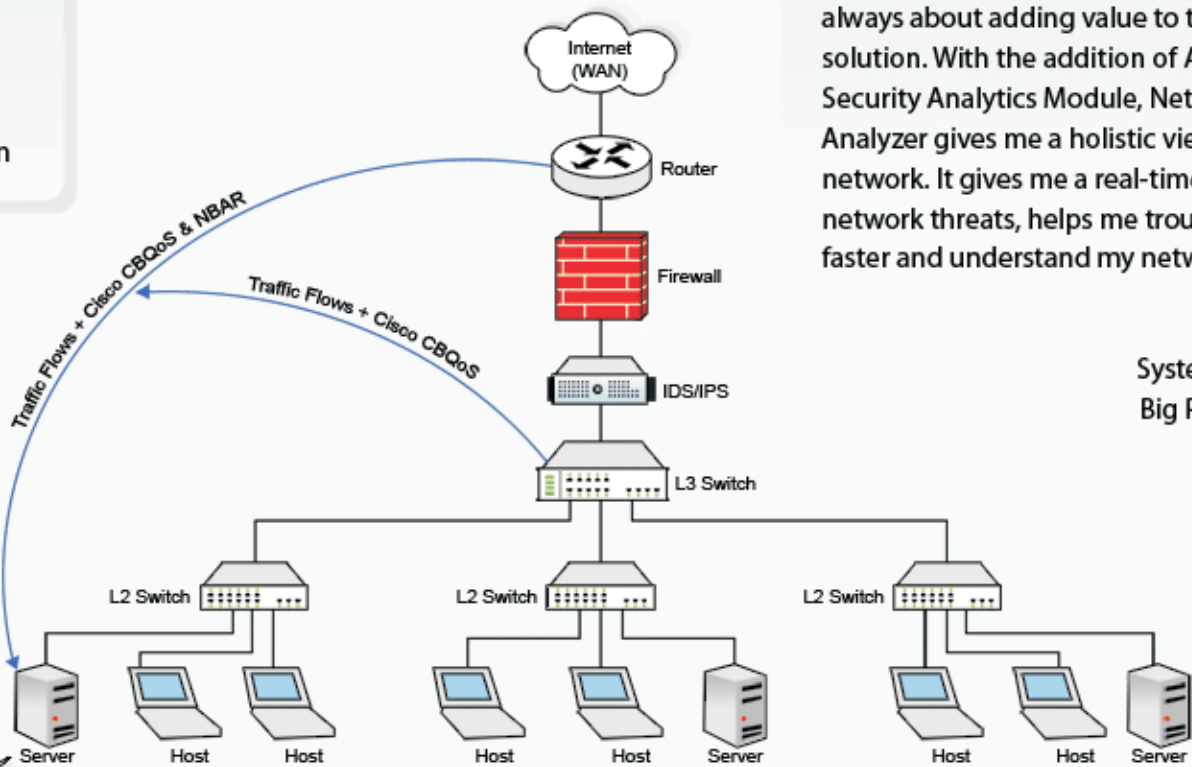
Traffic Flow

- Netflow
- sFlow
- cFlowd
- jFlow
- IPFIX
- NetStream

Customer Quote

ManageEngine NetFlow Analyzer has been always about adding value to their solution. With the addition of Advanced Security Analytics Module, NetFlow Analyzer gives me a holistic view of the network. It gives me a real-time visibility of network threats, helps me troubleshoot faster and understand my network better!

Jim Key
Systems Engineer,
Big River Internet.



Typical Network Security System Deployments

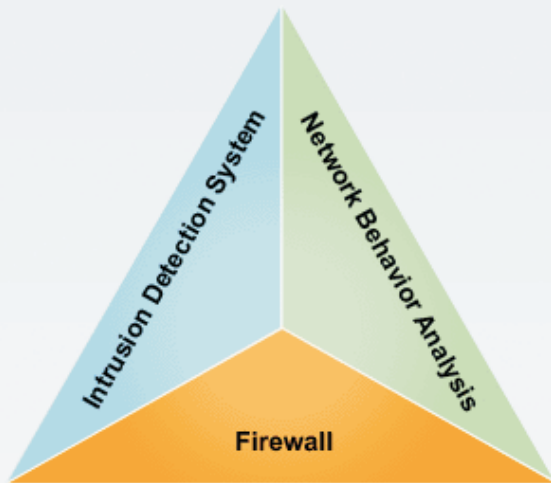
**NetFlow Analyzer with
Advanced Security Analytics add-on**

Is your network really secured, Have you confirmed this lately?

**What is your strategy for ensuring a comprehensive enterprise-wide
network security system?**

**Does deploying an agentless Unified Traffic Analysis Solution,
for improving network visibility, make sense?**

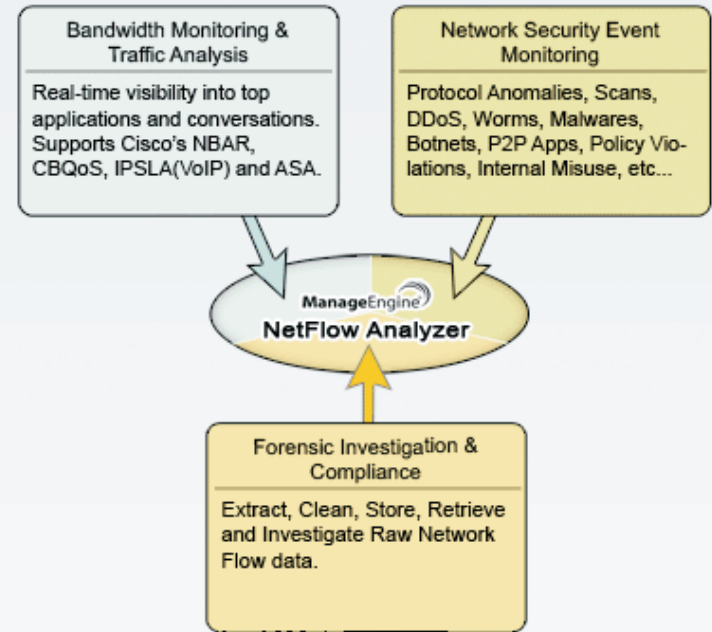
Comprehensive Enterprise Network Security



Benefits of a good NBA System

- Centralized agentless traffic data collection, analysis and management
- Seamless visibility into both external and internal security threats
- Context-sensitive zero-day intrusion/anomaly detection capabilities
- Continuous overall Security Posture assessment
- Proactive feedback-driven access and traffic policy decisions
- Actionable and real-time decision support system

Unified Traffic Analytics



About NetFlow Analyzer

ManageEngine NetFlow Analyzer is a unified traffic analysis and network forensics platform that leverages on the wide range of management technologies that are part of your Routers/Switches/WAN Accelerators. As the only product that supports Cisco NetFlow, Cisco NBAR, Cisco CBQoS and IPSLA (VoIP) out-of-the-box, NetFlow Analyzer provides unparalleled visibility into your network and how it impacts your business. NetFlow Analyzer also supports sFlow®, cflowd®, jFlow®, IPFIX®, NetStream®.

Chief Architect Quote

ManageEngine NetFlow Analyzer's Advanced Security Analytics Module exploits some of the state-of-the-art data processing strategies to build a unified network security analysis platform. To start-with, it focuses on covering an extensive array of zero-day network intrusion activities, coupled with actionable information collation and trouble-shooting capabilities. ASAM is well poised to incorporate some of the high-precision algorithms targeting both fast spreading as well as low-footprint and slippery network intrusion activities.

Chandramouli Srinivasan
ASAM Technical Architect,
ManageEngine.

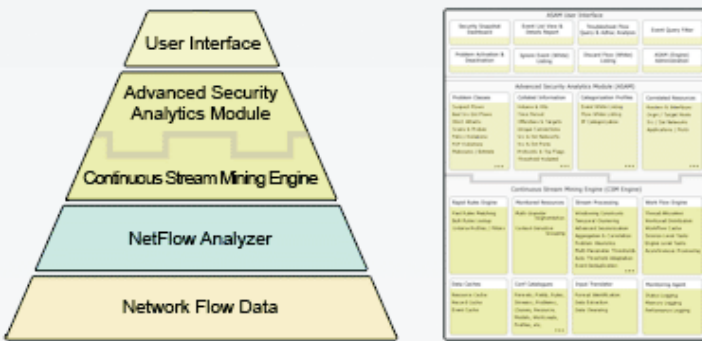
Other Salient Features

- Add custom applications based on port / hosts
- Automatic alerting when usage thresholds are violated and option to generate & schedule periodic reports
- Create your own IP based departments and divisions
- Validate & fine tune your CBQoS policies using CBQoS reporting
- Accurate capacity planning reports for informed infrastructure investments
- Monitor VoIP performance in your network
- Support for Flexible NetFlow NBAR, SNMP V3 and Cisco ASA
- Runs on both Windows and Linux

Advanced Security Analytics Module (ASAM)

Advanced Security Analytics Module is a network flow based security analytics and anomaly detection tool that helps in detecting zero-day network intrusions, using the state-of-the-art Continuous Stream Mining Engine™ technology, and classifying the intrusions to tackle network security threats in real time. ASAM offers actionable intelligence to detect a broad spectrum of external and internal security threats as well as continuous overall assessment of network security.

Technical Capabilities



- High throughput & low latency Stream Processing
- Asynchronous and parallel data processing
- Rapid Rules Engine and flexible criteria profiles
- Contextual resource modeling and problem heuristics
- Advanced event correlation and mining algorithms

Problems Detected

DoS

Land Attack Flows, ICMP Request Broadcasts, ICMP Protocol Unreachables...

Bad Src – Dst

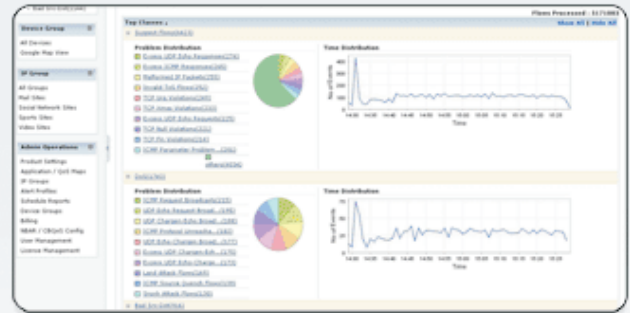
Invalid Src-Dst Flows, Non Unicast Source Flows, Excess Multicast Flows...

Suspect Flows

Malformed IP Packets, Invalid ToS Flows, Malformed TCP Packets...

Future Enhancement
 Policy Violations
 Behavioral Anomalies
 Malwares/Bonets
 ...

Security Snapshot



- Continuous Network Security Posture Assessment
- Groups Problems into various Classes
- Plots both spatial and temporal distribution of events

Security Event List Box

ID	Problem (Class)	Offender(s)	Routed via	Target(s)	Time	Hits
12332	Suspect Flows - Excess UDP Echo Responses	9: [192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0]	00: [192.168.220.45 (PIndex1), 192.168.1.0, 192.168.1.0, 192.168.1.0, 192.168.1.0]	11: [192.168.1.1, 192.168.1.0, 192.168.1.0, 192.168.1.0]	2010-07-21 15:34:19	100
12333	Suspect Flows - Excess UDP Echo Responses	9: [192.168.0.0, 192.168.0.0, 192.168.0.0]	00: [192.168.220.45 (PIndex1), 192.168.1.0, 192.168.1.0, 192.168.1.0]	11: [192.168.1.1, 192.168.1.0, 192.168.1.0, 192.168.1.0]	2010-07-21 15:34:17	100
12337	Suspect Flows - Excess UDP Echo Responses	25: [192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0, 192.168.0.0]	7: [192.168.220.74 (PIndex1), 192.168.220.74, 192.168.220.74, 192.168.220.74]	9: [192.168.220.5, 192.168.220.5, 192.168.220.5, 192.168.220.5]	2010-07-21 15:34:08	100

- Lists the offenders, targets and routing interfaces involved, and the time of occurrence
- Assigns a unique event id, severity, and status for incident management
- Advanced filtering options for event querying

Event Details Report

Field	Value
Volume	361.17 KB
Packets	8643
Hits	100
Unique Source IPs (Offenders)	9: [61.16.161.25, 61.16.161.21, 61.16.161.41, 74.201.154.226, 74.201.154.249, 74.202.79.71, 84.46.7.216, 209.85.155.106, 217.163.329.261]
Unique Destination IPs (Targets)	10: [50.16.161.16, 45.16.161.21, 61.16.161.41, 70.42.161.78, 74.201.154.91, 74.201.154.142, 74.202.154.226, 74.202.79.71, 100.126.0.209, 154.155.218.197]
Unique Source Networks	2: [0.0.0.0, 62.16.161.0]
Unique Destination Networks	2: [0.0.0.0, 62.16.161.0]
Unique Source Ports	13: [80, 443, 895, 2261, 39559, 41352, 43354, 46125, 50261, 50765, 52307, 52834, 53485, 58875]
Unique Destination Ports	8: [80, 443, 895, 2261, 5222, 29096, 39559, 42882]
Unique Applications	4: [ftp, https, pop3s, TCP_Appl]
Unique TCP Flags	2: [R, ..._APR_...]
Unique Protocols	1: [TCP]
Unique ToS Values	1: [0]
Unique In Interfaces (Routed Via)	2: [T151 - 45 mbps (M40), T151 - 45 mbps (PIndex2)]
Unique Out Interfaces	2: [T151 - 45 mbps (M40), T151 - 45 mbps (PIndex2)]
Unique Connections	10: [TCP: 209.85.155.106-60-45.16.161.16-42882, TCP: 217.163.329.261-60-60769-45.16.161.21-443, TCP:

- Actionable incident details collation and reporting
- Lists unique hosts, ports, protocol, tcpflags, connections and a lot of other details
- Summarizes the problem and threshold violation involved

Event Troubleshoot Report

Source IP	Destination IP	Application	Source Port	Dest. Port	Protocol	Tos	TCP_FLAGS	Packets	Traffic
61.16.161.10	203.196.153.11	icmp	0	2040	ICMP	0	N N N N A	45	3.94 KB
203.196.153.11	61.16.127.126	icmp	0	2040	ICMP	0	N N N N A	12	720.00 Bytes
61.16.161.10	203.196.153.11	icmp	0	2040	ICMP	0	N N N N A	6	200.00 Bytes
203.196.153.11	61.16.161.10	icmp	0	2040	ICMP	0	N N N N A	3	150.00 Bytes
61.16.161.10	203.196.153.11	icmp	0	2040	ICMP	0	N N N N A	3	180.00 Bytes
61.16.161.10	203.196.153.11	icmp	0	2040	ICMP	0	N N N N A	2	160.00 Bytes
61.16.161.10	61.16.161.10	icmp	0	2040	ICMP	0	N N N N A	1	90.00 Bytes
61.16.161.10	61.16.161.10	icmp	0	2040	ICMP	0	N N N N A	1	90.00 Bytes
61.16.161.10	61.16.161.10	icmp	0	2040	ICMP	0	N N N N A	1	90.00 Bytes
61.16.161.10	61.16.161.10	icmp	0	2040	ICMP	0	N N N N A	1	90.00 Bytes
61.16.161.10	61.16.161.10	icmp	0	2040	ICMP	0	N N N N A	1	90.00 Bytes
61.16.161.10	61.16.161.10	icmp	0	2040	ICMP	0	N N N N A	1	90.00 Bytes
61.16.161.10	61.16.161.10	icmp	0	2040	ICMP	0	N N N N A	1	90.00 Bytes
61.16.161.10	61.16.161.10	icmp	0	2040	ICMP	0	N N N N A	1	90.00 Bytes
61.16.161.10	61.16.161.10	icmp	0	2040	ICMP	0	N N N N A	1	90.00 Bytes
61.16.161.10	61.16.161.10	icmp	0	2040	ICMP	0	N N N N A	1	90.00 Bytes
61.16.161.10	61.16.161.10	icmp	0	2040	ICMP	0	N N N N A	1	90.00 Bytes
61.16.161.10	61.16.161.10	icmp	0	2040	ICMP	0	N N N N A	1	90.00 Bytes
61.16.161.10	61.16.161.10	icmp	0	2040	ICMP	0	N N N N A	1	90.00 Bytes

- Ad-hoc forensic investigation and analysis
- Groups flows for quickly discerning patterns
- Segments flows by originating router

Auto Ignore Events

Ignored events of	Land Attack Flows
from any Offender, via the following Router(s), to any Target. (Algorithm: ICMP Requests via Router <Enabled>)	
Rip: TISL - 45 mbps(61.12.4.126)	X
Rip: Cisco 2611- 60 mbps(61.12.4.127)	X
Rip: Datancenter(203.12.4.190)	X
Rip: TCL - 60 mbps(61.12.7.16)	X

- Whitelist specific resources for specific problems
- Option to store ignored events for auditing
- Consolidated Ignore Filter configuration reporting

Auto Discard Flows

Discarded Filter List
Discarded flows for Excess ICMP Requests
Flows matching any of the following criteria will be discarded. (Algorithm: ICMP Requests via Router <Enabled>)
Source IP (Offender) EQUALS: 61.16.161.10 or 61.16.161.10 or 61.16.161.35 or 174.0.76.28 or 203.196.153.11 or 205.216.12.9
Destination IP (Target) EQUALS: 61.16.161.1 or 61.16.161.2
Source Port EQUALS: 60 or 80 or 90

- Whitelist specific flows for specific problems
- Extensive flow filter configuration options
- Consolidated Discard Filter configuration reporting

Custom Problem Management

Manage Problems
Enabled List Disabled List
<input type="checkbox"/> Check All
<input type="checkbox"/> Excess Broadcast Flows
<input type="checkbox"/> Excess Empty TCP Packets
<input type="checkbox"/> Excess Empty UDP Packets
<input type="checkbox"/> Excess ICMP Requests
<input type="checkbox"/> Excess ICMP Responses
<input type="checkbox"/> Excess Multicast Flows
<input type="checkbox"/> Excess Networkcast Flows

- Enable/Disable specific problems and algorithms
- Focus on pertinent problems of interest

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Online Demo: <http://demo.netflowanalyzer.com>

For more information

ManageEngine is an innovative producer of Enterprise IT Management Software, offering high-end functionality of large network management frameworks at cost-effective prices to enterprises world-wide. With more than 40,000 Customers Worldwide, including 3 out of every 5 Fortune 500 companies, ManageEngine is the fastest growing high quality alternative to expensive software that is common in this industry.

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