

FIREEYE NETWORK SECURITY ESSENTIALS

EFFECTIVE PROTECTION AGAINST CYBER BREACHES
FOR SMALL TO MIDSIZE ORGANIZATIONS



NX 4400 (not pictured: NX 1500, NX 2500, NX 4420, NX 7500)

OVERVIEW

FireEye Network Security Essentials is a cost-effective cyber threat protection solution that helps small to midsize organizations minimize the risk of costly breaches by accurately detecting and immediately stopping advanced, targeted and other evasive attacks hiding in Internet traffic. At the core of FireEye Network Security Essentials are the Multi-Vector Virtual Execution™ (MVX) and Intelligence-Driven Analysis (IDA) technologies. MVX is a signature-less, dynamic engine that inspects suspicious network traffic to identify attacks that evade traditional signature- and policy-based defenses. IDA is a collection of contextual, rule-based engines that detect and block malicious activity based on the latest machine-, attacker- and victim- intelligence.

FireEye Network Security Essentials is available in a variety of form factor, deployment and performance options. It is typically placed in the path of Internet traffic behind traditional network security appliances such as next-generation firewalls, IPS and secure web gateways (SWG). FireEye Network Security Essentials supplements these solutions by rapidly detecting both known and unknown attacks with high accuracy and a low rate of false alerts.

Network Security Essentials gives small to midsize organizations the ability to deploy advanced threat defenses and stop attacks with real-time protection. A high degree of automation enables organizations to simplify deployment and day-to-day management.

Accurate Threat Detection

Network Security Essentials uses the signature-less MVX engine to execute suspicious binaries and web objects against a range of browsers, plug-ins, applications and operating environments that track vulnerability exploitation, memory corruption and other malicious actions. The MVX engine automatically detects known and never-before-seen exploits and malware introduced into heterogeneous networks with many types of endpoints. As an attack plays out, the rule-based IDA engines capture callback channels, dynamically creates blocking rules and shares information about the attack with other nodes connected to Network Security Essentials through the FireEye Dynamic Threat Intelligence (DTI) cloud. This shared information enables proactive sharing and blocking of unknown attacks.

DATA SHEET

HIGHLIGHTS

- Detects advanced, targeted and other evasive attacks with the patented, signature-less MVX engine and rule-based IDA engines.
- Identifies common and known attacks with traditional, signature-based IPS technology and intelligence-based detection.
- Disrupts attacks in real time with in-line blocking at up to 2 Gbps throughput for up to 20,000 users.
- Improves operational effectiveness with a low, false-positive rate and alert categorization.
- Simplifies management with low-touch deployment and a high degree of automation.
- Provides deployment flexibility with an all-in-one hardware appliance or FireEye-hosted Cloud MVX option.
- Reduces total cost of ownership (TCO) with affordable pricing and operational cost savings.



DTI disseminates the latest front-line intelligence gathered from incident-response activities conducted by Mandiant, a FireEye company and iSIGHT threat intelligence analysts to FireEye Network Security Essentials.

Immediate Protection

FireEye Network Security Essentials offers flexible deployment and configuration modes including: out-of-band via a TAP/SPAN, inline monitoring or inline active blocking. It can be configured to work inline at Internet egress points to automatically block inbound exploits and malware and outbound multi-protocol callbacks. In inline monitoring mode, alerts are generated and organizations decide how to respond to them. In out-of-band prevention mode, FireEye Network Security Essentials issues TCP resets for out-of-band blocking of TCP, UDP or HTTP connections.

Defense Against Known and Unknown Attacks

By consolidating advanced threat prevention for advanced, targeted and other evasive attacks with conventional IPS technology for known attacks, FireEye Network Security Essentials provides comprehensive protection against all types of known and unknown threats. The combination of signature-less protection provided by the MVX engine with the signature-based protection of traditional IPS technology simplifies management, improves operational efficiency and enables regulatory or policy compliance for advanced threat defense.

Automated Alert Validation

FireEye Network Security Essentials automates validation of IPS alerts, minimizing the manual evaluation needed to filter false positives.

Indicators that trigger IPS alerts are automatically passed to the MVX engine for replay and analysis. Alerts that prove to be malicious are highlighted. This validation process reduces false alerts and drives down operating costs by prioritizing true alerts hidden among the high volume of false and duplicate IPS alerts.

FireEye Network Security Essentials also categorizes riskware, a family of undesirable objects such as adware and spyware that doesn't necessarily lead to a breach. Together, FireEye

IPS alert validation and riskware categorization enables security teams to focus on genuine threats and remediation, minimizing business risk and operational overhead.

Flexible Deployment Options

Network Security Essentials is available as an all-in-one hardware appliance with integrated MVX and IDA engines to secure Internet access points at a single site. It is also available as one or more distributed Network Smart Node physical or virtual appliances that run the IDA engines and are connected to the FireEye Cloud MVX service (Figure 1). The distributed deployment option can be used to secure Internet access points for cloud-friendly organizations. Privacy is protected in a distributed deployment by analyzing traffic on the Network Smart Node and sending only suspicious objects over an encrypted connection to the MVX service, where objects revealed as benign are discarded. Network Smart Nodes are available both in physical and virtual form factors. Various deployment and performance options from 10 Mbps to 2 Gbps provide flexibility and rightsize the deployment of FireEye Network Security Essentials, aligning security with organizational preferences and resources.

Low Cost and Ease of Management

FireEye Network Security Essentials is an easy-to-manage, clientless platform that deploys in under 60 minutes. It doesn't require rules, policies or tuning. FireEye Network Security Essentials offers affordable enterprise-grade advanced threat protection and a range of operational cost savings. Automated alert noise reduction and a low false-positive rate reduce staffing needs and overall cost of ownership.

Awards and Certifications

The FireEye Network Security Essentials product portfolio has been awarded a number of industry and government awards and certifications including the US Department of Homeland Security Safety Act certification and is listed as a must-have in the Frost & Sullivan **Advanced Malware Sandbox Market Analysis**.

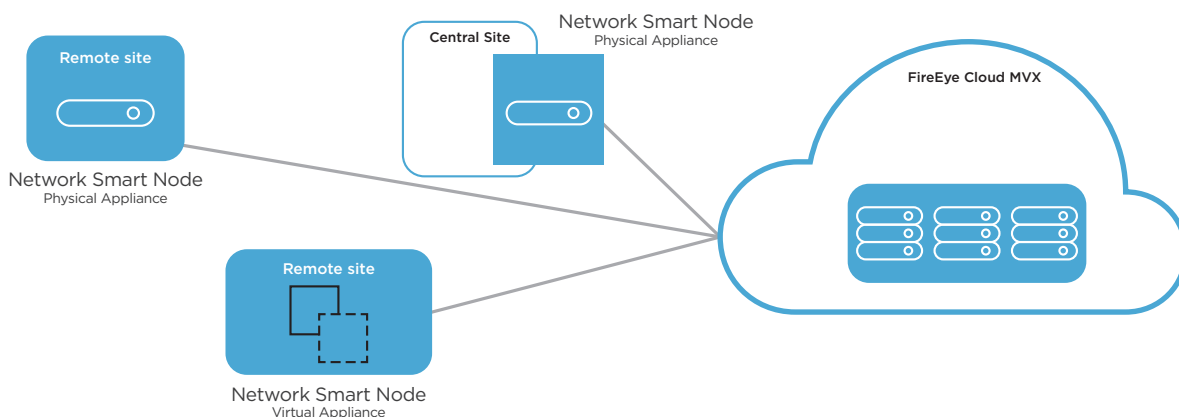


FIGURE 1. DISTRIBUTED CLOUD DEPLOYMENT

TABLE 1. FIREEYE NETWORK SECURITY ESSENTIALS SPECIFICATIONS, INTEGRATED APPLIANCE.

	NX 2500	NX 4400/4420	NX 7500
User Count	500 or 1,000	1,000 or 2,500	10,000
OS Support	Microsoft Windows Mac OS X	Microsoft Windows	Microsoft Windows Mac OS X
Performance *	Up to 50 Mbps or 100 Mbps	Up to 100 Mbps or 250 Mbps	Up to 1 Gbps
Network Monitoring Ports	4x 10/100/1000 BASE-T Ports (in front panel)	4400: 4x 10/100/1000 BASE- T Ports 4420: 4x 1000 BASE-SX Fiber Optic Ports (LC Multimode)	4x 10/100/1000 BASE- T Ports
High Availability (HA)	Not Available	Not Available	Not Available
Network Ports Mode of Operation	In-line Monitor, Fail-Open, Fail- Close or Tap/ Span, HW Bypass	In-line Monitor, Fail-Open, Fail- Close or Tap/ Span, HW Bypass	In-line Monitor, Fail-Open, Fail- Close or Tap/ Span, HW
High Availability (HA) Ports (rear panel)	Not Available	Not Available	Not Available
Management Ports (rear panel)	2x 10/100/1000 BASE- T Ports (in front panel)	2x 10/100/1000 BASE- T Ports	2x 10/100/1000 BASE- T Ports
IPMI Port (rear panel)	Included	Included	Included
Front LCD & Keypad	Not Available	Included	Included
PS/2 Keyboard and Mouse, DB15 VGA Ports (rear panel)	Not Available	Included	Included (no PS/2 Keyboard and Mouse)
USB Ports (rear panel)	2x Type A USB Ports (front panel)	2x Type A USB Ports	4x Type A USB Ports
Serial Port (rear panel)	115,200 bps, No Parity, 8 bits, 1 Stop Bit (RJ45 connector RJ45-to-Dsub adapter cable is included)	115,200 bps, No Parity, 8 Bits, 1 Stop Bit	115,200 bps, No Parity, 8 Bits, 1 Stop
Drive Capacity	Single 1TB 3.5 SATA HDD, internal, fixed	2x 600 GB HDD, RAID 1, 2.5 inch, FRU	4x 900 GB HDD, RAID 10, 2.5 inch, FRU
Enclosure	1RU, Fits 19 inch Rack	1RU, Fits 19 inch Rack	2RU, Fits 19 inch Rack
Chassis Dimension WxDxH	17. 2x19.7x1.7 (437 x 500 x 43.2 mm)	17.2 x 27.8 x 1.70 (437 x 706 x 43.2 mm)	17.2 x 28 x 3.41 (437 x 711 x 86.6mm)
DC Power Supply	Not Available	Not Available	Not Available
AC Power Supply	Single 250 watt, 90-264 VAC, 3.5 - 1.5 A, 50-60 Hz, IEC60320-C14, inlet, Internal, Fixed	Redundant (1+1) 750 watt, 100 - 240 VAC 9 - 4.5A, 50-60 Hz IEC60320-C14 inlet, FRU	Redundant (1+1) 750 watt, 100 - 240 VAC 9 - 4.5A, 50-60 Hz IEC60320-C14 inlet, FRU
Power Consumption Maximum (watts)	85 watts	305 watts	479 watts
Thermal Dissipation Maximum (BTU/h)	290 BTU/h	1041 BTU/h	1634 BTU/h
MTBF (h)	56,400 h	37,000 h	58,900 h

TABLE 1. FIREEYE NETWORK SECURITY ESSENTIALS SPECIFICATIONS, INTEGRATED APPLIANCE.

	NX 2500	NX 4400/4420	NX 7500
Appliance Alone / As Shipped Weight lb. (kg)	16.2 lb (7.3 kg) / 28.2 lb (2.95 kg)	31 lb. (14 kg) / 46 lb. (21 kg)	43 lb. (19.5 kg) / 59 lb. (27kg)
Regulatory Compliance Safety	EN 60950-1, 1:2006+A11:2009+A1:2010 +A12:2011+A2:2013; IEC 60950-1:2005 + Am 1:2009 + Am 2:2013	IEC 60950 EN 60950 CSA 60950-00 CE Marking	IEC 60950 EN 60950 CSA 60950-00 CE Marking
Regulatory Compliance EMC	FCC Part 15 SubPart B Class A; ICES-003 Class A; EN55022 Class A; VCCI V-3 Class A; EN 55024, EN 61000-3-2 Class A; EN 61000-3-3; CNS 13438 (2006) Class A; CISPR22 Class A; AS/NZS CISPR 22 Class A; KN 32; KN 35	FCC (Part 15 Class-A), CE (Class-A), CNS, AS/NZS, VCCI (Class A)	FCC (Part 15 Class-A), CE (Class-A), CNS, AS/NZS, VCCI (Class A)
Security Certifications	-	CC NDPP v1.1	CC NDPP v1.1
Environmental Compliance	RoHS; REACH; WEEE	RoHS, REACH, WEEE	RoHS, REACH, WEEE
Operating Temperature	0° C to 40° C	10° C to 35° C Tested from 0°C to 40°C for additional margin	10° C to 35° C Tested from 0°C to 40°C for additional margin
Non-Operating Temperature	-20°C to 80°C	-40°C to 70°C	-40°C to 70°C
Operating Relative Humidity	5% - 85% (non-condensing)	8% - 90% (non-condensing)	8% - 90% (non-condensing)
Non-Operating Relative Humidity	5% - 95% (non-condensing)	5% - 95% (non-condensing)	5% - 95% (non-condensing)
Operating Altitude	5,000 ft	5,000 ft	5,000 ft

TABLE 2. FIREEYE NETWORK SECURITY ESSENTIALS IPS SPECIFICATIONS, INTEGRATED APPLIANCE.

	NX 2500	NX 4400/4420	NX 7500
Max IPS Performance	Up to 50 Mbps or 100 Mbps	Up to 100 Mbps or 250 Mbps	1 Gbps
Max Concurrent Connections	15K or 80K	80K	500K
New Connections Per Second	750/Sec or 4K/Sec	4K/Sec	10K/Sec

TABLE 3. FIREEYE NETWORK SMART NODE, PHYSICAL SPECIFICATIONS.

	NX 1500	NX 2500	NX 4400/4420	NX 7500
User Count	500	1,000 or 2,500	2,500 or 5,000	20,000
OS Support	Microsoft Windows Mac OS X	Microsoft Windows Mac OS X	Microsoft Windows Mac OS X	Microsoft Windows Mac OS X
Performance	Up to 50 Mbps	Up to 100 Mbps or 250 Mbps	Up to 250 Mbps or 500 Mbps	Up to 2 Gbps
Network Monitoring Ports	4x 10/100/1000 BASE-T Ports	4x 10/100/1000 BASE-T Ports (in front panel)	4400: 4x 10/100/ 1000 BASE- T Ports 4420: 4x 1000 BASE-SX Fiber Optic Ports (LC Multimode)	4x 10/100/1000 BASE- T Ports
High Availability (HA)	Not Available	Not Available	Not Available	Not Available
Network Ports Mode of Operation	In-line Monitor, Fail- Close or Tap	In-line Monitor, Fail-Open, Fail- Close or Tap/ Span, HW Bypass	In-line Monitor, Fail-Open, Fail- Close or Tap/ Span, HW Bypass	In-line Monitor, Fail-Open, Fail- Close or Tap/ Span, HW
High Availability (HA) Ports (rear panel)	Not Available	Not Available	Not Available	Not Available
Management Ports (rear panel)	2x 10/100/1000 BASE- T Ports	2x 10/100/1000 BASE- T Ports (in front panel)	2x 10/100/1000 BASE- T Ports	2x 10/100/1000 BASE- T Ports
IPMI Port (rear panel)	Not Available	Included	Included	Included
Front LCD & Keypad	Not Available	Not Available	Included	Included
PS/2 Keyboard and Mouse, DB15 VGA Ports (rear panel)	Not Available	Not Available	Included	Included (no PS/2 Keyboard and Mouse)
USB Ports (rear panel)	2x Type A USB Ports	2x Type A USB Ports (front panel)	2x Type A USB Ports	4x Type A USB Ports
Serial Port (rear panel)	115,200 bps, No Parity, 8 bits, 1 Stop Bit (RJ45 connector; RJ45-to-Dsub adapter cable is included)	115,200 bps, No Parity, 8 bits, 1 Stop Bit (RJ45 connector RJ45-to-Dsub adapter cable is included)	115,200 bps, No Parity, 8 Bits, 1 Stop Bit	115,200 bps, No Parity, 8 Bits, 1 Stop
Drive Capacity	Single 500GB 2.5 SATA HDD, internal, fixed	Single 1TB 3.5 SATA HDD, internal, fixed	2x 600 GB HDD, RAID 1, 2.5 inch, FRU	4x 900 GB HDD, RAID 10, 2.5 inch, FRU
Enclosure	1RU, Desktop formfactor	1RU, Fits 19 inch Rack	1RU, Fits 19 inch Rack	2RU, Fits 19 inch Rack
Chassis Dimension WxDxH	11x6.9x1.7 (280 x 175 x 43.2 mm)	17. 2x19.7x1.7 (437 x 500 x 43.2 mm)	17.2 x 27.8 x 1.70 (437 x 706 x 43.2 mm)	17.2 x 28 x 3.41 (437 x 711 x 86.6mm)
DC Power Supply	Not Available	Not Available	Not Available	Not Available
AC Power Supply	External 60 Watt 12V@5A Ouput AC Adapter, 90-264 VAC, , 50-60 Hz, IEC60320-C14, inlet, FRU	Single 250 watt, 90-264 VAC, 3.5 - 1.5 A, 50-60 Hz, IEC60320-C14, inlet, Internal, Fixed	Redundant (1+1) 750 watt, 100 - 240 VAC 9 - 4.5A, 50-60 Hz IEC60320-C14 inlet, FRU	Redundant (1+1) 750 watt, 100 - 240 VAC 9 - 4.5A, 50-60 Hz IEC60320-C14 inlet, FRU

TABLE 3. FIREEYE NETWORK SMART NODE, PHYSICAL SPECIFICATIONS.

	NX 1500	NX 2500	NX 4400/4420	NX 7500
Power Consumption Maximum (watts)	27 watts	85 watts	305 watts	479 watts
Thermal Dissipation Maximum (BTU/h)	92 BTU/h	290 BTU/h	1041 BTU/h	1634 BTU/h
MTBF (h)	95,400 h	56,400 h	37,000 h	58,900 h
Appliance Alone / As Shipped Weight lb. (kg)	3.75 lb (1.7 kg) / 6.5 lb (2.95 kg)	16.2 lb (7.3 kg) / 28.2 lb (2.95 kg)	31 lb. (14 kg) / 46 lb. (21 kg)	43 lb. (19.5 kg) / 59 lb. (27kg)
Regulatory Compliance Safety	EN 60950-1, 1:2006+A11:2009+A1:2010+A12:2011+A2:2013; IEC 60950-1:2005 + Am 1:2009 + Am 2:2013	EN 60950-1, 1:2006+A11:2009+A1:2010+A12:2011+A2:2013; IEC 60950-1:2005 + Am 1:2009 + Am 2:2013	IEC 60950 EN 60950 CSA 60950-00 CE Marking	IEC 60950 EN 60950 CSA 60950-00 CE Marking
Regulatory Compliance EMC	FCC Part 15 SubPart B Class A; ICES-003 Class A; EN55022 Class A; VCCI V-3 Class A; EN 55024; EN 61000-3-2 Class A; EN 61000-3-3; CNS 13438 (2006) Class A; CISPR22 Class A; AS/NZS CISPR 22 Class A; KN 32; KN 35	FCC Part 15 SubPart B Class A; ICES-003 Class A; EN55022 Class A; VCCI V-3 Class A; EN 55024, EN 61000-3-2 Class A; EN 61000-3-3; CNS 13438 (2006) Class A; CISPR22 Class A; AS/NZS CISPR 22 Class A; KN 32; KN 35	FCC (Part 15 Class-A), CE (Class-A), CNS, AS/NZS, VCCI (Class A)	FCC (Part 15 Class-A), CE (Class-A), CNS, AS/NZS, VCCI (Class A)
Security Certifications	-	-	CC NDPP v1.1	CC NDPP v1.1
Environmental Compliance	RoHS; REACH; WEEE	RoHS; REACH; WEEE	RoHS, REACH, WEEE	RoHS, REACH, WEEE
Operating Temperature	0° C to 40° C	0° C to 40° C	10° C to 35° C Tested from 0° C to 40° C for additional margin	10° C to 35° C Tested from 0° C to 40° C for additional margin
Non-Operating Temperature	-20°C to 80°C	-20°C to 80°C	-40°C to 70°C	-40°C to 70°C
Operating Relative Humidity	5% - 85% (non-condensing)	5% - 85% (non-condensing)	8% - 90% (non-condensing)	8% - 90% (non-condensing)
Non-Operating Relative Humidity	5% - 95% (non-condensing)	5% - 95% (non-condensing)	5% - 95% (non-condensing)	5% - 95% (non-condensing)
Operating Altitude	5,000 ft	5,000 ft	5,000 ft	5,000 ft

TABLE 4. FIREEYE NETWORK SMART NODE IPS, PHYSICAL SPECIFICATIONS.

	NX 1500	NX 2500	NX 4400/4420	NX7500
Max IPS Performance	50 Mbps	100 /250 Mbps	500 Mbps	2 Gbps
Max Concurrent Connections	15K	80K	160K	1M
New Connections Per Second	750/Sec	4K/Sec	8K/Sec	20K/sec

TABLE 5. FIREEYE NETWORK SMART NODE, VIRTUAL SPECIFICATIONS.

	NXS 1500V	NXS 2500V	NXS 2550V	NXS 4500V	NXS 6500V
User Count	500	1,000	2,500	5,000	10,000
OS Support	Microsoft Windows Mac OS X	Microsoft Windows Mac OS X	Microsoft Windows Mac OS X	Microsoft Windows Mac OS X	Microsoft Windows Mac OS X
Performance *	Up to 50 Mbps	Up to 100 Mbps	Up to 250 Mbps	Up to 500 Mbps	Up to 1 Gbps
Network Monitoring Ports	1-8	1-8	1-8	1-8	1-8
Network Management Ports	1 or 2	1 or 2	1 or 2	1 or 2	1 or 2
Network Ports Mode of Operation	Inline, SPAN	Inline, SPAN	Inline, SPAN	Inline, SPAN	Inline, SPAN
CPU Cores	3	6	8	8	16
Memory	10GB	16GB	16GB	32 GB	32 GB
Drive Capacity	384 GB	384 GB	384 GB	512 GB	512 GB
Network Adapters	VMXNet 3, vNIC	VMXNet 3, vNIC	VMXNet 3, vNIC	VMXNet 3, vNIC	VMXNet 3, vNIC
Hypervisor Support	VMWare ESXi 6.0 or later	VMWare ESXi 6.0 or later	VMWare ESXi 6.0 or later	VMWare ESXi 6.0 or later	VMWare ESXi 6.0 or later

TABLE 6. FIREEYE NETWORK SMART NODE IPS, VIRTUAL SPECIFICATIONS.

	NXS 1500V	NXS 2500V	NXS 2550V	NXS 4500V	NXS 6500V
Max IPS Performance	50 Mbps	100 Mbps	250 Mbps	500 Mbps	1 Gbps
Max Concurrent Connections	15K	80K	80K	160K	500K
New Connections Per Second	750/Sec	4K/Sec	4K/Sec	8K/sec	10K/Sec

Note: *All performance values vary depending on the system configuration and traffic profile being processed.

Support Services

FireEye offers simple and flexible support programs to maximize the value of your FireEye products and services. Four different levels of support services are available: Platinum, Platinum Priority Plus, Government and Government Priority Plus. For more information about FireEye support, refer to **FireEye Support** services.

For more information on FireEye, visit:

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