

Ixia Vision Edge 1S (E1S) Edge Visibility Appliance

The need for real-time network data visibility into edge sites has never been greater. Being able to know how one's network, applications, and services are performing is no longer "nice to have." In fact, it is now imperative to have the ability to quickly quantify threats within and outside of the network.

Ixia's new Vision Edge 1S (E1S) combines network packet broker functionality, application monitoring, and synthetic monitoring — all in one device. This is perfect for edge site installations that require remote network performance monitoring combined with selected packet collection to centralized tools.

Key Features:

- **Cost effective** - Ixia's most affordable network packet broker, Vision E1S is designed for easy deployment in distributed edge sites
- **Application intelligence** - detect flow and applications, generate enriched NetFlow (IxFlow) to collectors, and perform remote packet capture
- **Active traffic capable** - utilize a best-in-class traffic generation library that generates synthetic traffic to verify network capacity and run regular network performance polling
- **Remote controlled, easy-to-use web-interface** - allows efficient provisioning and remote management
- **Comprehensive wizards** - make deployment extremely easy

Highlights

- 1U compact platform
- Supports 1G to 10G networks
- Supports scaling your security infrastructure to edge sites
- Featured with Ixia's NetStack, PacketStack and AppStack capabilities
- Aggregation, replication, filtering
- AppStack for enriched NetFlow (IxFlow) generation and remote packet capture
- Active traffic generation up to 10G line rate for a Hawkeye monitoring platform
- Central management on the Hawkeye platform










Figure 1: Vision E1S



Figure 2: E1S Front

Product Capabilities

Netstack Capabilities	
Ixia's gold-standard baseline filtering functionality for network packet brokers	
 <p>Filtering Filter between ingress ports and egress ports for maximum flexibility in designing complex Boolean logic without the need of using extra ports for loopback</p>	 <p>Replication Replication of the ingress port enables the same input to connect to multiple egress ports, with filtering rules in the middle applying same rules to all egress ports</p>
 <p>Aggregation Consolidate incoming traffic to optimize port usage and simplify filter logic — support for 1:1, 1:M, M:1, and M:N traffic mapping</p>	
Packetstack Capabilities	
Packet processing modifies packets at line-rate, with capabilities up to 10Gbps	
 <p>Tunneling L2GRE-based tunneling over WAN/LAN (origination and termination)</p>	 <p>Header Stripping Includes VLAN, MPLS, L2GRE, and ERSPAN</p>
Appstack Capabilities	
Identify network traffic based on application, geography, device information, and service provider — all while performing application-based filtering and generation of NetFlow and IxFlow up to 2Gbps	
 <p>Application Flow Reporting Reports bandwidth utilization by application breakdown, providing visibility on link utilization</p>	 <p>Packet Capture (Remote) Apply a filter to capture packets — up to 100Mb per capture</p>
 <p>NetFlow and IxFlow Generate flows in standard NetFlow v9/v10 format or enriched format, adding application or geographic information</p>	 <p>Real-time Dashboard Comprehensive network traffic information showing traffic volume and bandwidth used by different applications</p>

Hawkeye Active Monitoring Capabilities

Active traffic generation capability with up to 10G line-rate traffic and rich application simulation library — enabling network performance validation for service turn up and 24/7 proactive performance monitoring



Application Library

Rich library to use for active/synthetic traffic assessment — including everything from layer 3 network performance metric applications to layer 7 application-specific verification, along with http/https, voice, video, and traffic mixes

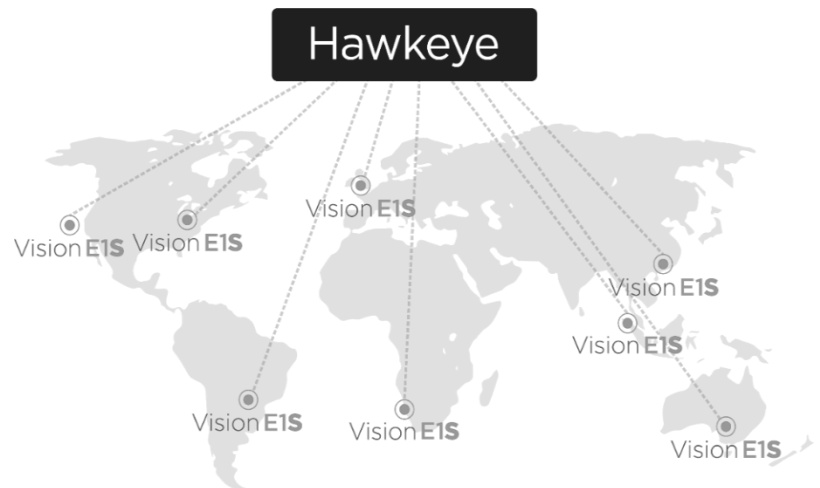


Distributed Endpoints

Vision E1S is compatible with the Hawkeye active monitoring solution; E1S can generate up to 10G traffic as an endpoint that can interoperate with other hardware, virtual, and software endpoints

Central Management

- On-premises server or cloud-based
- Central, unified management of all Vision E1S devices for all capabilities
- SLA-based approach for performance management
- Reporting and analytics of metrics



Operating Specifications

Vision E1S	
Power <ul style="list-style-type: none">• Redundant (2) AC power supplies• Input AC: 110 to 240 @ 50/60 Hz• Power: 300W• System Cooling: 2 x PWM fans, supports smart fan	Physical Size, Weight <ul style="list-style-type: none">• WxLxH: 442 x 298.25 x 43.6 mm• Weight: 3.08 kg• 1U rack mount - support FIPS 140-2 Level 2 in chassis• Operating Temperature: 0 to 40 degrees Celsius• Operating Humidity: 20% to 90%• Storage Temperature: -20 to 70 degrees Celsius• Storage Humidity: 5% to 90%• Country of Origin: Taiwan
Interfaces <ul style="list-style-type: none">• (4) 10G SFP+ (NetStack + AppStack + Active Monitoring)• (6) 1G BASE-T copper (NetStack + AppStack)• (2) 1G BASE-T copper (Management + Active Monitoring)• (1) USB 3.0 port• (1) RJ45 serial console port	
Regulatory <ul style="list-style-type: none">• CB, EN/IEC 60950, UL/CUL, CE Class A• CB, EN/IEC 62368, UL/CUL, CE Class A	
Safety <ul style="list-style-type: none">• UL 60950-1, 2nd Edition, 2014-10-14, CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10, EN 60950-1:2006 + A1:2010 + A11:2009 + A12:2011 + A2:2013, IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013, UL 62368-1, Second Edition, IEC 62368-1:2014 (Second Edition), EN 62368-1:2014/A11: 2017, CAN/CSA C22.2 No. 62368-1-14	
Emissions <ul style="list-style-type: none">• EN 55032:2012/AC:2013, Class A, CFR 47, FCC Part 15B, Canada: ICES-003: Issue 6:2016, AS/NZ CISPR 32:2015 Class A, KCC – Korea, BSMI – Taiwan, CCC - China	
Immunity <ul style="list-style-type: none">• EN 55024:2010, EN 61000-3-2:201, EN 61000-3-3:2013, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11	
Environmental <ul style="list-style-type: none">• The RoHS Directive 2011/65/EU, 2006/1907/EC (REACH)	

Performance

Maximum System Capacity			
Performance may vary with use of multiple functions simultaneously and based on the incoming traffic mixes on the NetStack and AppStack functions.			
NetStack/PacketStack	Traffic Ingress To Egress Performance		
	Packet Size	1G Interface	10G Interface
	• IMIX (*)	Line rate	Line rate
	• 512 bytes	Line rate	9 Gbps
	• 1024 bytes	Line rate	Line rate
	• 1518 bytes	Line rate	Line rate
(*) IMIX traffic refers to typical Internet traffic mix. For benchmarks the following repartition was used for 17% 64 bytes packets, 51% 570 bytes packets, and 32% 1518 bytes packets.			
AppStack	Up to 2 Gbps of typical application mixed traffic		
Active Monitoring	Up to line rate for 1G and 10G interfaces for TCP and UDP		

Ordering Information

Vision E1S System	
Hardware	Description
SYS-E1S-AC	IXIA Vision E1S System AC Chassis with fixed (4) 10G SFP+ ports and (6) 1G RJ-45 ports; Contains two redundant AC power supplies and integrated redundant fan units. Includes (1) license for NetStack, PacketStack, AppStack and (3) user seat license for central management with Hawkeye. Seats are not additive (max 3 users per Hawkeye server). Synthetic monitoring is not included. Optional licenses available for additional user seat licenses and synthetic monitoring.

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