

IXIA VISION EDGE 100 (E100) NETWORK PACKET BROKER

DATA SHEET

The need for real-time visibility into network data has never been greater. Being able to know how applications and services are performing is no longer a nice to have. It is also imperative to have the ability to quickly quantify threats from within and outside of your network.

Current reality is that compute, storage and networks are now software defined and built by the rack and containers. And, in keeping with demand to deliver lower operating expense and offering the best-of-breed in software-defined flexibility, visibility is lost at every layer as installations get dense and traffic moves east-west within a rack and north-south between racks.

More servers, more switching layers, more virtual platform translate to more visibility blind spots.

Ixia's new Vision Edge 40 (E40) and Vision Edge 100 (E100) network packet brokers are designed to provide rack-level visibility through a solution that allows seamless integration into existing hybrid SDN architectures, offering true flexible multi-speed capability, and a comprehensive feature set for the versatility to adapt to the future, ensuring your Security Fabric's strength, all while offering a compelling total cost of ownership.

KEY FEATURES:

- **High density multi-speed network packet broker** that is designed for deployment in racks to aggregate traffic
- **Exceptionally feature rich** stand-alone packet broker that supports 10G to 100G networks
- **Easy-to-use web-interface** allows you to focus on security rather than configuration
- **Comprehensive wizards** that makes deployment extremely easy
- **Space efficient** 1RU design saves rack space in your data center
- **Inline and out-of-band capable** for flexibility
- **Secure serial console port with authentication**

HIGHLIGHTS

- High density 1U platform for visibility per rack service
- Supports 10G to 100G networks
- Port speeds 10G, 25G, 40G, 50G, 100G
- Supports scaling your security infrastructure in more manageable steps
- Inline and OOB operation
- Fully featured with Ixia's robust NetStack capabilities:
 - Aggregation, replication, filtering and load balancing
 - Ixia's patented filter compiler and three stages of filtering for one of a kind flexibility in managing network and tool traffic profile
- Software defined platform that offers new features without platform change
- Priority-based filtering including inline and HA configurations
- IFC support for joining by system ID



Figure 1: E100 Front








Figure 2: E100 Back

USE CASES

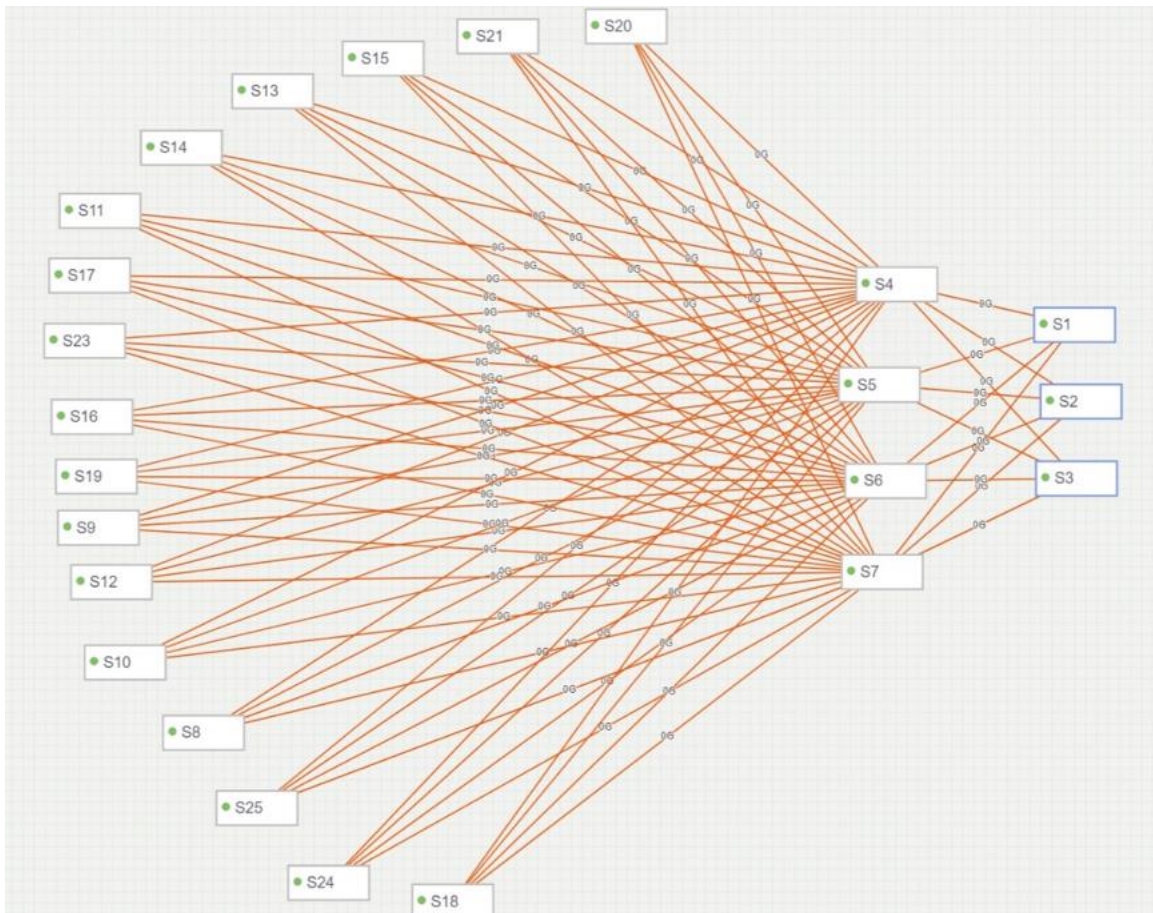
- For top-of-the-rack visibility for a single site deployment with network and tools
- In a leaf-spine architecture, aggregating across multiple racks in a smaller or microscale data center
- In a high-availability configuration, when used with Ixia's bypass switches, for a single data center

PRODUCT CAPABILITIES

NETSTACK CAPABILITIES	
The Ixia gold-standard baseline filtering functionality for network packet brokers	
 <p>Three Stages of Filtering – Filter at ingress ports, in the middle and at egress ports for the maximum flexibility in designing complex Boolean logic without the need of using extra ports for loopback</p>	 <p>Dynamic Filter Compiler – Patented technology that resolves rule overlaps automatically and hence makes configuration simple and eliminates human errors</p>
 <p>Aggregation – Consolidate incoming traffic to optimize port usage and simplify filter logic. Support 1:1, 1:Many, Many:1 and Many:Many traffic mapping</p>	 <p>Replication – At the ingress port as well as at the dynamic filter. Replication at the ingress allows the same input to connect to multiple dynamic filters. Replication at the dynamic filter allows multiple tools to get identical traffic from the same dynamic filter.</p>
 <p>Load-balancing – Sophisticatedly distributes traffic across tools ports for monitoring in a session aware manner to preserve traffic integrity and also to maximize up-time with fail-over protection</p>	
E100 HIGHLIGHTS	
<ul style="list-style-type: none"> • Layer 2 forwarding of 6.4Tbps (full duplex) • Capable of (5) speeds - 10G, 25G, 40G, 50G and 100G networks CLI support for Inline features and NetStack features • Support IFC clustering with other Vision platforms to offer single pane of glass management for a cluster of NPBs • (32) QSFP28 front panel ports • Supports QSFP28 (for 100G) or QSFP+ (for 40G) transceivers • Each port is capable of any of the 5 speeds, set independently • Massive density with (128) 10G ports in 1U size • Hot swap redundant power supplies and fans • Available in AC and DC model 	

IXIA FABRIC CONTROLLER (IFC) CLUSTERING

- Ixia Fabric Controller (IFC) clustering offers single pane of glass management for your network packet brokers. NPBs in a distributed environment can be managed and configured, using a single User Interface, as if one centralized visibility and security fabric
- IFC clustering supports any combination of Vision Edge 40/100/10S, Vision ONE/7300/X platforms
- Typical topologies supported include: hub-and-spoke, spine-and-leaf, tree, ring, full mesh, partial mesh, or any combination of above
- User configurable number of Controller Node vs. Fabric Node to maximize resiliency
- Supports direct connection for interconnects, or GRE encapsulated interconnects (limited to Vision ONE and 7300 only) when going thru DWDM or WAN devices
- Supports both single hop and multi hop cluster topology
- Best routes are calculated based on least hop-count using Shortest Path First (SPF) algorithm
- Intelligent load balance among Equal Cost Multiple Paths (ECMP) to guarantee session integrity and avoid packet reordering
- User triggered path re-optimization to avoid failed links or nodes



INLINE CAPABILITIES

- Supports failsafe serial service chaining, parallel load balancing with spares, or combined topologies
- Customizable heartbeat (HB) support to detect and automatically recover from monitoring and security tool failures
- Multiple HB templates allow each tool to have its own unique HB
- Asymmetric hashing supports common use cases for lawful interception
- Bypass switches and Ixia Vision ONE can have different HB so multi-tier design is possible to increase overall resilience for High Availability (HA)

PORT CONFIGURATION AND DENSITY

System	10G	25G	40G	50G	100G
Ixia Vision E100 Max # of ports	128	128	32	64	32

OPERATING SPECIFICATIONS

IXIA VISION E100

Power

- 2 redundant hot swap AC power supplies
- 2 redundant hot swap -48V DC power supplies
- Input voltage: 90 to 264 VAC @ 50-60 Hz
- Input voltage: -36 to -72 VDC
- Max Power: 350 W without pluggable optics
- Typical Power: 310 W without pluggable optics

Regulatory

- CB, EN 60950
- UL/CUL
- CE Class A

Physical Size, Weight and Environmental

- WxDxH: 17.3 x 20.3 x 1.71 inches
- Weight: 23 lbs with two installed PSU
- Regulatory and compliance information will be updated and included here in the future
- Operating Temperature: 0 to 45 degrees Celsius
- Operating Humidity: 5% to 95% non-condensing
- Country of Origin: China
- Country of shipment to End customer: USA

ORDERING INFORMATION

IXIA VISION E100 SYSTEM	
HARDWARE BUNDLE PART NUMBER	DESCRIPTION
SYSE100-8PC-AC	Ixia Vision E100 System AC Chassis with fixed (32) QSFP28 100GE port; Includes licenses for (8) ports at 10G, 40G, 100G (991-0152)
SYSE100-8PC-DC	Ixia Vision E100 System DC Chassis with fixed (32) QSFP28 100GE port; Includes licenses for (8) ports at 10G, 40G, 100G (991-0153)
SYSE100-32P4X-AC	Ixia Vision E100 System AC Chassis with fixed (32) QSFP28 100GE port; Licensed for (32) port at 40G ports or (128) at 10G; 5-speed capable (10/25/40/50/100G) as upgrade; Optional ports and feature licenses available
SYSE100-32P4X-DC	Ixia Vision E100 System AC Chassis with fixed (32) QSFP28 100GE port; Licensed for (32) port at 40G ports or (128) at 10G; 5-speed capable (10/25/40/50/100G) as upgrade; Optional ports and feature licenses available

IXIA VISION E100 PORT AND FEATURES	
LICENSE BUNDLE PART NUMBER	DESCRIPTION
LIC-E100-ADD-4P	Ixia Vision E100, Port license for an additional (4) ports (993-0159)
LIC-E100-ADD-24P	Ixia Vision E100, Port license for an additional (24) ports (993-0158)
LIC-E100-32PC-U	Ixia Vision E100, Upgrade SYSE100-32P4X-AC/DC to 100G; Includes port license for all (32) ports (993-0156)
LIC-E100-INLN	Ixia Vision E100 enables Inline feature; licensed per system (993-0162)

IXIA VISION E100 SPARE AND MODULES	
HARDWARE PART NUMBER	DESCRIPTION
SYSE100-SPR-AC	Ixia Vision E100 System AC Chassis with no ports or features enabled (991-0160)
SYSE100-SPR-DC	Ixia Vision E100 System DC Chassis with no ports or features enabled (991-0161)
LIC-E100-SPR	Ixia Vision E100, Cold spare system license; NOTE: Includes max configuration (993-0154)
ME100-ACPS	Ixia Vision E100 (1) AC power module, for the Vision E100 chassis (992-0080)
ME100-DCPS	Ixia Vision E100 System, (1) DC power module, for the Vision E100 chassis (992-0081)
ME100-FAN-ASSY	Ixia Vision E100, (1) FAN module, for the Vision E100 chassis (992-0085)

Learn more at: www.ixiacom.com

For more information on Ixia products, applications, or services, please contact your local Ixia or Keysight Technologies office.

The complete list is available at: www.ixiacom.com/contact/info