

Gigabit IxChariot with Vision Edge 1S (E1S)

IxChariot simulates real-world applications to predict device, system, and network performance under realistic load conditions. The solution consists of an IxChariot Console and Performance Endpoints that are distributed throughout multiple sites and data centers, end-user PCs, and mobile devices.

An IxChariot endpoint is available on Ixia's Vision Edge 1S (E1S) that offers network packet broker functionality, application monitoring, and traffic generation — all in one device.

Combined with IxChariot, users can enable it for traffic generation for 1G or 10G interfaces for up to line-rate traffic generation.

Key Features

- **Optimized 10G endpoint hardware** – Test one or several 1G to 10G interfaces when combined with IxChariot
- **Turnkey endpoint** – Easy configuration through command line interface (CLI)
- **Extendable to support other applications** – Compatible with Hawkeye synthetic monitoring, can also be used as a packet broker or Netflow generator (see complete Vision Edge 1S datasheet for full feature list)

Highlights

- 1U compact platform
- Supports 1G to 10G network interfaces
- Natively supports IxChariot endpoint
- Optimized hardware for traffic generation
- Compatible with Hawkeye synthetic monitoring
- Licensed for Aggregation, replication, filtering of packets
- Licensed for AppStack for enriched NetFlow (IxFlow) generation and remote packet capture



Figure 1. Vision E1S



Figure 2. E1S Front

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+ (IxChariot + NetStack + AppStack)• (6) 1G BASE-T copper (NetStack + AppStack)• (2) 1G BASE-T copper (Management + IxChariot)• (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	
Environmental <ul style="list-style-type: none">• The RoHS Directive 2011/65/EU, 2006/1907/EC (REACH)	

Configuration for IxChariot

Vision Edge 1S can be used as a IxChariot endpoint configured with one or several interfaces, with up to 10x1G ports and 4x10G ports. Provided routing and interface configuration is properly done (only one routing table for all interfaces, it can be used as an endpoint with several interfaces (each showing their IP) from IxChariot.

Performance can reach up to line rate for TCP traffic generation for one or several interfaces with up to 20G traffic generation in total in standard configurations.

Performance for UDP will be below line rate (typically up to 6G) for 1500 bytes packet size and can expand to 10G traffic with jumbo frame configuration.

To use the E1S as a software traffic generator with IxChariot:

1. From the E1S CLI, run the following command to adjust the system for use with IxChariot

```
#chariotMode enabled
```

2. Use **probeConfigure** command to point the E1S to the IxChariot server:

```
#probeConfigure
```

```
# Probe/Host Name (E1S-P5983): <YourHostName>
```

```
# Hawkeye Server (1.1.1.1): <IxChariot Server IP address>
```

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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