

Vision X Network Packet Broker

Scalable Visibility for Data Centers Today and Tomorrow

next-generation network visibility solution. It delivers expandability and flexibility that meets the ever-evolving needs of the data center.

Vision X is a high-density, modular chassis comprised of customizable front modules and multi-speed port choices. It also supports a rear, advanced packet processing module, extending the total packet processing capacity of the chassis.

With a small data center footprint, Vision X conserves both power and rack space. Its footprint, along with its upgradable chassis, will improve your overall ROI now and in the future.

Key features

Automated filter compiler that simplifies configuration using either the powerful GUI or REST API

Zero-loss, advanced packet processing improves tool efficiency through deduplication, packet trimming, and header stripping without dropping packets

Space efficient 3RU design saves rack space in your data center

Inline Decryption provides the ability to decrypt and re-encrypt traffic as a transparent proxy for both inline and out-of-band tool deployments. Offloads the decryption burden from tools to improve ROI and security performance

Application intelligence with hundreds of pre-loaded signatures for app detection and reporting, app filtering and metadata generation

Highlights

High-density 100GE, 3RU modular chassis

4 front modules, 1 rear module

Hot-swappable fans, power, and modules

Up to 2 Tbps of advanced packet processing

PTP 1588 Time Stamping

IFC clustering with other Vision platforms to offer single pane of glass management

Highest performing GTP correlation for evolved packet core visibility



Comprehensive wizards make inline tool deployment extremely easy for complex use cases that require tool sharing or VLAN translation

Secure serial console port with authentication

Management port IP white listing

IFC cluster supports any-to-any topology with tools either a single hop or multiple hops away

Filtering on IP4/IPv6 fragments

GTP session correlation with 5G performance and scale

Port Flexibility

Main switch + 4 x NetStack modules:

- Up to 60 100GbE
- Up to 108 50GbE
- Up to 76 40GbE
- Up to 108 10/25GbE

Main switch + 4 x PacketStack modules:

- Up to 44 100GbE
- Up to 88 50GbE
- Up to 76 40GbE
- Up to 108 10/25GbE

Product Capabilities

The Ixia gold-standard baseline filtering functionality for network packet brokers	
Dynamic Filter Compiler Patented technology that resolves rule overlaps automatically and hence makes configuration simple and eliminates human errors	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
Aggregation Consolidate incoming traffic to optimize port usage and simplify filter logic. Supports 1:1, 1: Many, Many:1 and Many:Many traffic mapping	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
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	Source Port Labelling (VLAN Tagging and Untagging) VLAN tag management (ingress tagging and egress stripping)

Line-rate (up to 2 Tbps), intelligent packet processing. Modify every packet at line-rate using any

Flexibly assign advanced packet processing to any port or dynamic filter in 100 Gbps increments.

Deduplication 400 Gbps capacity per module (100G increments) and up to 2 Tbps per chassis	Header Stripping Includes FabricPath, ETag, VNTag, GTP, MPLS, VxLAN, L2GRE, ERSPAN, LISP Generic Header Stripping can be used to strip protocols headers not in above list. Examples are: L3GRE, GENEVE, JMirror, PBB-TE, VSL, OTV, PPPoE
Packet Trimming (Slicing) To modify packet slice or reta in only relevant data	Timestamping Timestamping (local, NTP, PTP 1588)
Tunneling L2GRE based tunneling termination over WAN/LAN	Data Masking Protect PII and sensitive data with an offset

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

Link Force Down (LFD) and its triggered response can bring coordinated link status change in either standalone or High Availability (HA) mode

Tool Sharing (TS) allows the same set of inline tools to be shared among multiple network segments without cross talk

VLAN translation allows inline tools that

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)

Our Active-Active Inline HA solution is the gold standard in the industry and offers the most resilient architecture to protect all kinds of failures

Hardware option to support integrated Active SSL. Integrated ASSL enables significant saving of both deployment and troubleshooting time

ThreatARMOR bundles eliminate decryption of known-bad traffic, and reduce attack surface and non-actionable security alerts

Classifies traffic based on the follow:

- Application, geography, device information and service provider
- Application signatures are regularly update via ATI subscription

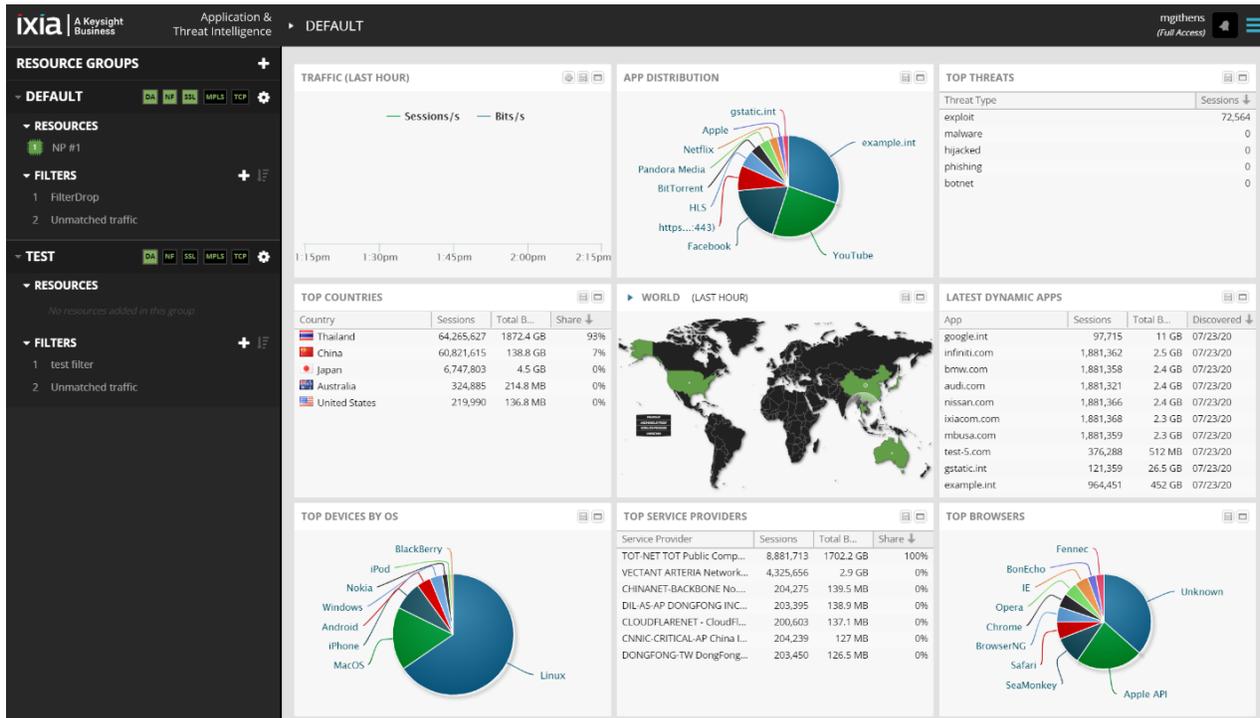
Regular expression matching

Multiple actions can be taken on matching sessions

- Forward all related packets to an analysis tool
- Drop traffic that matches certain filters
- Perform packet modifications such as L4-7 data masking, MAC header rewrite
- Enhanced NetFlow v9 and IPFIX v10, optionally adding IxFlow fields can be generated and sent to up to 10 collectors

Simple pricing

- ATI subscription includes all current and new features and application signatures released



Delivered through an Application Module with dedicated cryptographic processor

Transparently intercepts and decrypts TLS traffic, allows inspection by tools, then re-encrypts the traffic, and transmits it forward

Supports all modern TLS encryption schemes

Support for both forward proxy and reverse proxy in the same instance

Supports Host Categorization Service for decryption bypass of site types such as Financial and Health

Offload the decryption from a service chain of multiple security tools

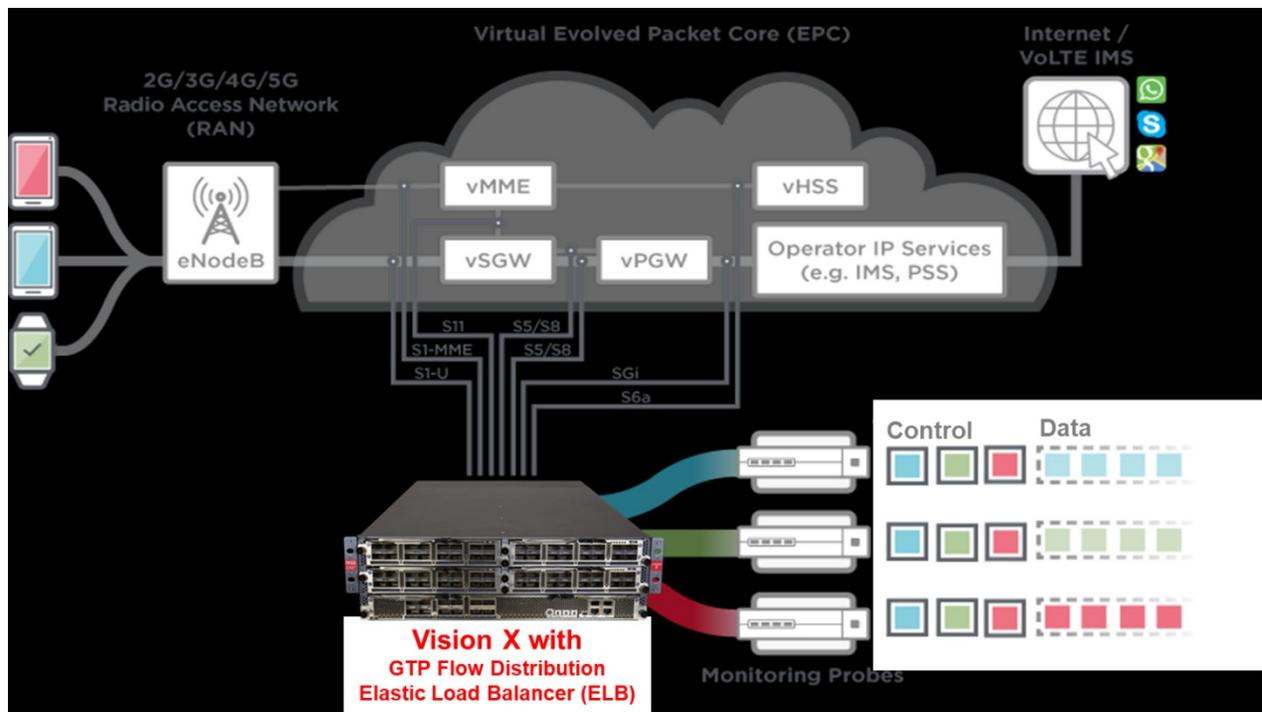
Dedicated high-performance cryptographic processor handles up to 25 Gb aggregate TLS traffic.

Does not impact ability to use any other feature on the Vision X

High-performance 4G and 5G mobile network visibility that intelligently delivers subscriber traffic to monitoring probes and tools through two main product options:

1. GTP Flow Distribution (Elastic Load Balancing)
2. GTP Correlation

GTP FLOW DISTRIBUTION (ELASTIC LOAD BALANCING)



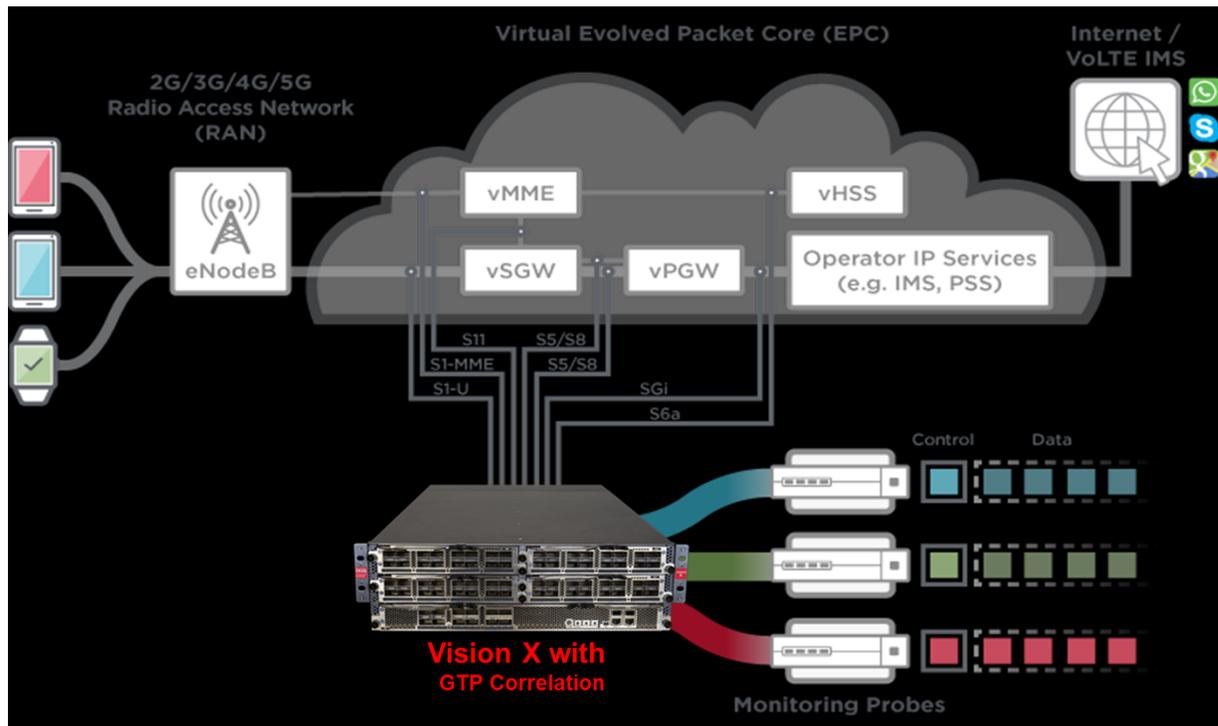
Utilize Elastic Load Balancer (ELB) to load balance GTP traffic using GTP Flow Distribution

Delivers smooth GTP-U IP flow distribution across multiple tool ports

Broadcasts GTP-C packets to one or multiple tool ports

Handles up to 2TB of GTP traffic per Vision X chassis within dedicated hardware acceleration architecture for high performance

GTP CORRELATION



Robust processing architecture delivers correlated GTP data to monitoring probes and tools consistently with up to 1600G GTP-U and up to 512 M subscribers

Utilizes subscriber correlation, sampling, and filtering to dramatically reduce probe and tool costs while maintaining subscriber Quality of Experience (QOE)

Allows multiple session filters to maximize flexibility and ease-of-use

Provides integrated session table backup allows for session table persistence between reboots and upgrades

Features multiple allow listing capacity to maintain visibility into important subscribers while sampling

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

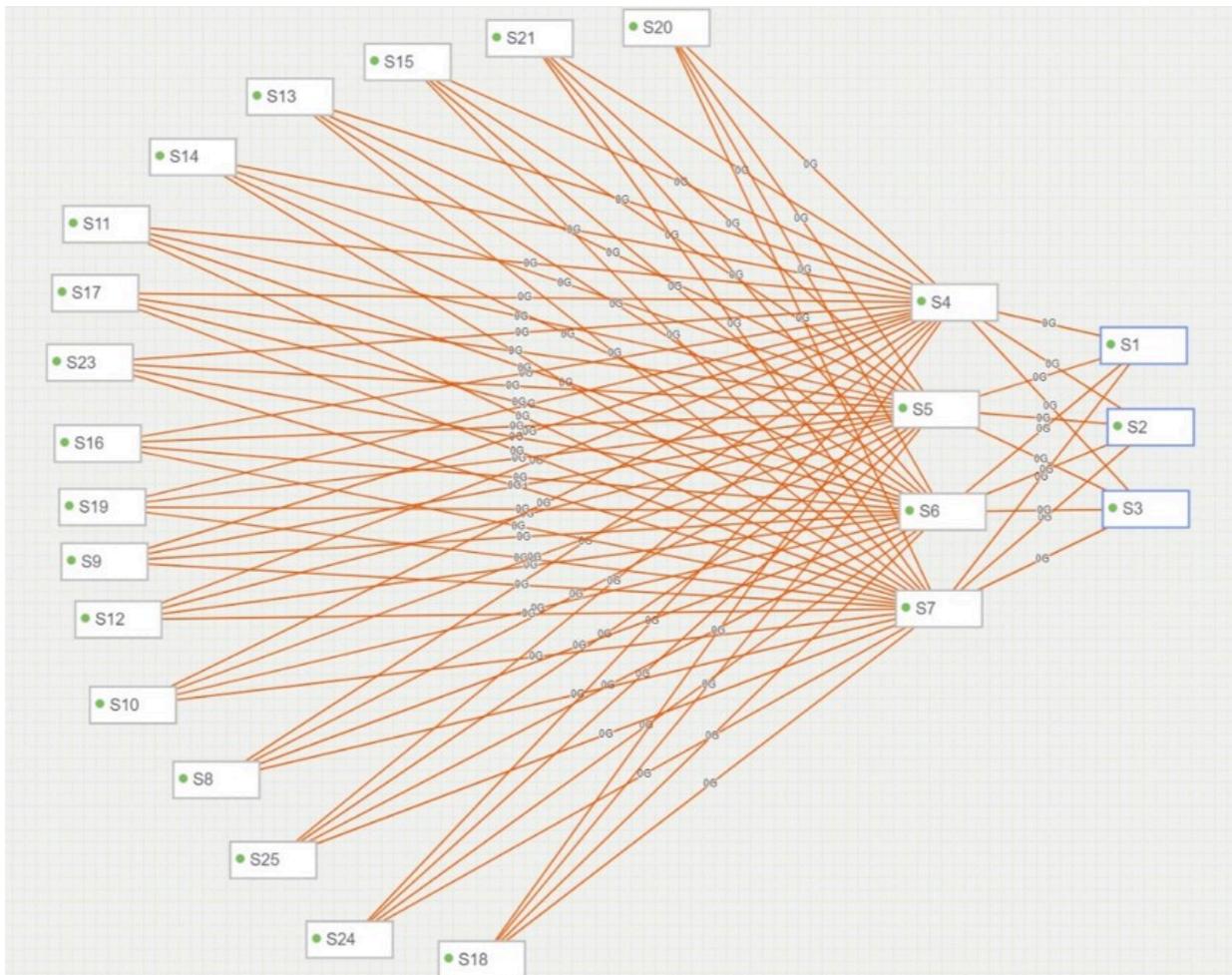
Supports direct connection for interconnects, or GRE encapsulated interconnects (limited to Vision ONE and 7300 only) when going thru DWDM or WAN devices

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



Specifications

<p>Performance</p> <p>Fully non-blocking 6.4Tb switch capacity</p> <p>Line-rate across all ports with filtering enabled</p> <p>10GbE/25GbE/40GbE/50GbE/100GbE support</p>	<p>Management</p> <p>SNMP v1, v2, v3 support</p> <p>Local, RADIUS, TACACS+ support (members and groups)</p> <p>Granular access control features</p> <p>Event monitoring and logging</p> <p>Syslog</p> <p>IT Automation control with REST API</p> <p>2 management interfaces</p> <p>Supports management port IP whitelisting</p>
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<p>Size and weight</p> <p>3RU high rack mountable</p> <p>H x x (inches)</p> <p>Weight: 125 lbs. (57 kg)</p>	<p>AC power</p> <p>Quad hot swappable AC power supplies</p> <p>Input AC Voltage: 90-240 VAC RMS</p> <p>Maximum power, each power supply:</p> <ul style="list-style-type: none"> ◦ 100 VAC input 1260 W ◦ 110-120 VAC input 1400 W ◦ 200-240 VAC input 1500 W <p>Maximum heat/power dissipation for system: 3500 W/11942BTU/hour</p>
<p>Safety certifications and compliance</p> <p>IEC/UL/CSA 60950-1, IEC/UL/CSA 62368-1, CE, ETSI EN 300 386, FCC Part 15B - Class A, ICES-003 - Class A, AS/NZS CISPR 32 and 24, KN 32 and 35, BSMI</p>	<p>DC power</p> <p>Quad hot swappable DC power supplies</p> <p>Operating input voltage: -40 to -72 VDC</p> <p>Maximum power, each power supply: 1500 W</p> <p>Maximum heat/power dissipation for system: 3500 W/11942BTU/hour</p>
<p>Country of origin</p> <p>Malaysia</p>	

<p>Temperature</p> <p>Operating: 5 °C to 40 °C</p> <p>Short-term*: -5 °C to 55 °C (*not to exceed 96 consecutive hours)</p> <p>Short-term* with fan failure: -5 °C to 40 °C (*not to exceed 96 consecutive hours)</p>	<p>Humidity</p> <p>Operating: 5% to 85% (non-condensing)</p> <p>Short-term*: 5% to 90% (non-condensing) (*not to exceed 96 hours)</p>
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Ordering Information

Vision X Chassis

SYSVX-BASE-AC	IXIA Vision X Base system, AC.
	Includes chassis, 12-port 100G Switch card, 4 AC power supplies, 5 fans and 4+1 smart blanks
SYSVX-BASE-DC	IXIA Vision X Base system, DC.
	Includes chassis, 12-port 100G Switch card, 4 DC power supplies, 5 fans and 4+1 smart blanks
SYSVX-CHAS-AC	IXIA Vision X Chassis Base system.
	Includes chassis, 4 AC power supplies, 5 fans and 4+1 smart blanks, main switch card not included
SYSVX-CHAS-DC	IXIA Vision X Chassis Base system.
	Includes chassis, 4 DC power supplies, 5 fans and 4+1 smart blanks, main switch card not included

Vision X Interface Modules, Licenses, Options and Accessories

Main Switch and Interface Modules

MVX-SWCH	IXIA Vision X Switch Card with (12) 100G ports
MVX-NS12PC	IXIA Vision X, NetStack 12-port 100G module
MVX-PS8PC	IXIA Vision X, PacketStack 8-port 100G module (Front)
MVX-PS-R	IXIA Vision X, Rear PacketStack module
MVX-AM4PC	IXIA Vision X, App Module (4) port 100G module; Port and feature licenses sold separately

Port and Features Licenses

LIC-VX-1PC	IXIA Vision X, Port license for (1) 100G multispeed port
LIC-VX-PS2C	IXIA Vision X, 200Gbps PacketStack feature license. Includes Data Masking, Packet Trimming, Packet Timestamping, Add trailer with original packet length, Trailer Stripping
LIC-VX-DDUP	IXIA Vision X, (1) Packet Deduplication feature license
LIC-VX-STRP	IXIA Vision X, (1) Header stripping feature license
LIC-VX-TUNL	IXIA Vision X, (1) Tunneling feature license
LIC-VX-SPR	IXIA Vision X, (1) Cold spare system license
LIC-VX-IFC	IXIA Vision X, (1) Fabric connectivity feature license

AppStack Licenses

LIC-VX-SSAS	IXIA Vision X, AppStack perpetual feature; Licensed for one (1) CPU on MVX-AM4PC module; Max (2) per module
SUB-VX-SSAS	IXIA Vision X, one (1) year AppStack feature subscription; Licensed for one (1) CPU on MVX-AM4PC module; Max (2) per module
SUB-VX-APTL	IXIA Vision X, one (1) year subscription; Includes AppStack signature updates and threat intelligence feature updates, QTY (1) per system

Inline Decryption Licenses

LIC-VX-ASSL	IXIA Vision X, Active SSL perpetual feature; Licensed for one (1) CPU on MVX-AM4PC module; Max (2) per module
SUB-VX-ASSL-HCS	IXIA Vision X, Host Categorization Service subscription; Licensed for one (1) CPU on MVX-AM4PC module; Max (2) per module
SUB-VS-ASSL	IXIA Vision X, one (1) year Active SSL and Host Categorization Service subscription; Licensed for one (1) CPU on MVX-AM4PC module; Max (2) per module

MobileStack Licenses

LIC-VX-MS2C	IXIA Vision X, MobileStack perpetual feature; GTP Correlation, GTP -U for up to 200G on MVX-PS-R or MVX-PS8PC Module; Max (2) per module
LIC-VX-GTP	IXIA Vision X, MobileStack perpetual feature; GTP Correlation, GTP -C for up to 64M subscriber sessions per CPU on MVX-AM4PC module; Max (2) per module
LIC-VX-GTPFD2C	IXIA Vision X, 200G MobileStack GTP Flow Distribution (ELB) for up to 200G on MVX-PS-R or MVX-PS8PC Module; Max (2) per module

Power Supply

MVX-DCPS	IXIA Vision X, (1) DC Power Supply
MVX-ACPS	IXIA Vision X, (1) AC Power Supply

Fan Module

MVX-FAN	IXIA Vision X, (1) FAN module

Accessories

MVX-CBLM	IXIA Vision X, (1) Cable Management
MVX-SBF	IXIA Vision X, (1) Smart Blank (Front)
MVX-SBR	IXIA Vision X, (1) Smart Blank (Rear)

Learn more at: resourcecomm.com

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