# VISION ONE SECURITY WITHOUT SACRIFICE



# DATA SHEET

Amplify your security without changing a cable. Ixia Vision ONE provides IT Operations the ability to deploy resources where they are needed most and secure any traffic in their network.

Ixia Vision ONE acts as the first step to security, providing reliable inline connectivity for security tools such as intrusion prevention systems (IPS), data loss prevention (DLP), and Web firewalls. It simultaneously connects out-of-band monitoring tools like intrusion detection systems (IDS) and data recorders.

Integrated intelligence features enable you to access encrypted traffic using SSL decryption, reduce analysis traffic using advanced packet processing, and precisely select traffic by application type, and geography. Ixia Vision ONE forwards selected traffic in a variety of formats to interoperate with any security tool.

# **KEY FEATURES:**

- Powerful GUI allows you to focus on security rather than configuration—the industry-leading user interface and patented filter compiler make configuration simple for both inline and out-ofband topologies
- CLI support for NetStack and inline features
- Active SSL the ability to decrypt and re-encrypt traffic as an active SSL proxy for both inline and out-of-band tool deployments. Offloads the SSL burden from tools to improve ROI and security performance
- **Passive SSL decryption** provides downstream security tools with plain text content, so they do not need to support or incur the performance overhead of decrypting traffic to find hidden threats
- VOIP / VoLTE support provides correlation, sampling and whitelisting of SIP/RTP traffic. Allows visibility into Evolved Packet Core (EPC) and IP Multimedia Core Network Subsystem (IMS) interfaces based on SIP messaging.

# **HIGHLIGHTS**

- Extends the reach of security tools to access the entire network
- Supports inline and out-of-band monitoring use cases
- Active SSL and Passive SSL decryption options with stateful, clear text output
- Supports scaling your security infrastructure with Ixia Fabric Controller
- Supports VOIP / VoLTE (SIP/RTP Correlation)
- Supports line-rate packet deduplication, header stripping and other advanced features
- Supports L2GRE termination from vTap and L2GRE Origination to WAN
- Supports protocol header stripping for **all** known protocols, standard or proprietary
- Enables identification of applications by bandwidth, session, and geography
- Supports simultaneous packet forwarding and generation of NetFlow v9 and v10 records
- Supports both fan-in and fan-out to increase 10/40G port density
- "Double your ports" when ports are in simplex mode
- Delivers frequent updates via ATI subscription
- Priority-based filtering including inline and HA configuration supported
- IFC clustering with other Vision platforms to offer single pane of glass management

• Zero-loss advanced packet processing improves security tool efficiency through techniques such as deduplication and packet trimming without dropping packets.



- **Classify traffic in real time** with hundreds of pre-loaded application signatures, and direct it to the correct tool according to parameters such as application type, geolocation, or even handset type— so tools get just the traffic type they need, again optimizing your investment in tool infrastructure
- **Sophisticated load balancing** distributes traffic across several tools for monitoring or inline in serial or parallel to maximize up-time and ensure that no critical data is lost
- **Comprehensive wizards** make inline tool deployment extremely easy for complex use cases that require tool sharing or VLAN translation
- Space efficient 1RU design saves rack space in your data center
- Secure serial console port with authentication

#### **PRODUCT CAPABILITIES**

# **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)
- · Easily combine Active SSL offload with a service chain of security tools
- ThreatARMOR bundles eliminate decryption of known-bad traffic, and reduce attack surface and non-actionable security alerts

# PACKETSTACK (AFM) CAPABILITIES

- Full, line rate intelligent packet processing. Modify every packet at line-rate using any combination of Ixia's PacketStack (AFM) capabilities
- Deduplication, trimming, timestamping, 1G burst protection and data masking
- Head stripping that includes VLAN, FabricPath, ETag, VNTag, GTP, MPLS, VxLAN, L2GRE, ERSPAN, Supports cascaded header stripping
- Newly introduced Generic Header Stripping can be used to strip protocols headers not in above list. Examples are: L3GRE, GENEVE, JMirror, PBB-TE, LISP, VSL, OTV, PPPoE
- Selective packet trimming for HTTPs and GQUIC traffic. Traffic can be GTP encapsulated, or no encapsulation
- L2GRE tunnel termination as well as tunnel origination

- Source Port Labeling adds new TLV in Ixia's Trailer to indicate which chassis, which card, and which port the incoming traffic is from. This feature can be used in conjunction with timestamping and report of original packet length when trimming
- Flexibly assign 160Gbps total processing capacity to any port in 10Gbps increments

#### **APPSTACK (ATIP) CAPABILITIES**

- Classifies traffic based on the following:
  - o Application, geography, device information, and service provider
  - Application signatures are regularly updated 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 filter
  - o Perform packet modification such as L4-7 data masking, MAC header rewrite
  - Enhanced NetFlow v9 and v10 and IPFIX, optionally IxFlow can be generated and sent to up to 10 collectors
- Simple pricing
  - ATI subscription includes all current and new features and application signatures released

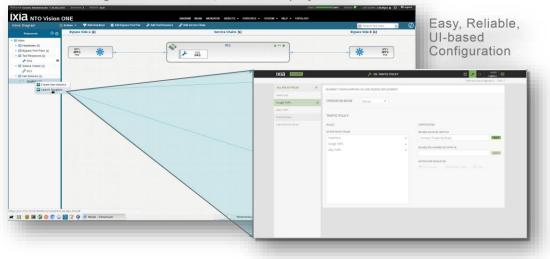


Figure 1: Ixia's AppStack (ATIP) Capabilities provides easy-to-use graphical displays of the traffic captured by Ixia Vision ONE

SECURESTACK CAPABILITIES			
Data Masking Plus	<ul> <li>To protect sensitive data such as credit cards and personally identifiable information (PII)</li> <li>Default regular expressions provided for commonly request data patterns such as credit card numbers</li> <li>Target field identified by user-definable regular expression</li> </ul>		
	Passive SSL Decryption	Active SSL Decryption and for ephemeral key	
SSL/TLS Versions	TLS1.0, TLS1.1, and TLS1.2	cryptography TLS1.0, TLS1.1, TLS1.2	
Asymmetric Key Exchange	RSA and ECDH	RSA, ECDH, ECDHE	
Symmetric Keys	AES, 3DES, and RC4	AES and 3DES	
Hashing Algorithms	SHA and MD5	SHA and AEAD	
Maximum concurrent sessions	Over 1,000,000	200,000	
Private Key Storage	Encrypted and 'write only'	Encrypted and 'write only'	
Throughput	Up to 8Gb	Up to 10Gb	

# IXIA'S ACTIVE SSL CAPABILITY

- Delivered through a visibility application module with dedicated cryptographic processor
- Transparently intercepts and decrypts SSL/TLS traffic, allows inspection by tools connected to Ixia Vision ONE, then re-encrypts it and transmits to the server
- Supports all modern SSL/TLS encryption schemes
- Support both forward proxy and reverse proxy
- Supports host categorization for decryption bypass
- Software performance licenses and upgrades
- Offload decryption from a service chain of multiple security tools
- Dedicated high-performance cryptographic processor handles up to 10Gb aggregate SSL traffic, does not impact ability to use AppStack (ATIP) or PacketStack (AFM) capabilities



Vision**ONE** integration for flexible, resilient deployments

Figure 2: Vision ONE GUI is easy to utilize and resolves filter overlaps automatically.

#### **MOBILESTACK CAPABILITIES**

- Correlate VoLTE calls on various EPC and IMS interfaces based on SIP messaging
- Sample VoLTE traffic coherently across multiple sites all RTP packets for a call are captured
- Whitelist prevents calls from being sampled via a phone number that is then always correlated regardless if call originated by Callee or Caller
- Provide Statistics for current/max/avg # calls, new call rate/s, # of timeouts, SIP & RTP pps

# VoIP / VoLTE VISIBILITY

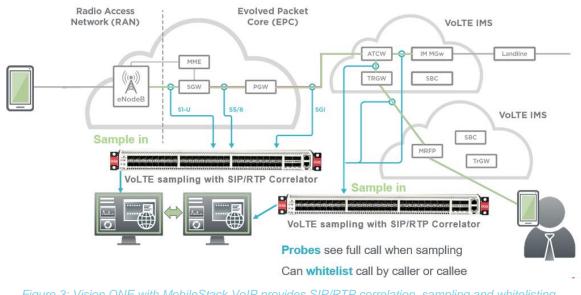


Figure 3: Vision ONE with MobileStack VoIP provides SIP/RTP correlation, sampling and whitelisting

# **SPECIFICATIONS**

GENERAL S	SPECIFICATIONS
Performance	Management
1U Security Appliance	<ul> <li>SNMP v1, v2, v3 support</li> </ul>
<ul> <li>In-band or passive deployment</li> <li>Full line rate across all ports with blocking</li> </ul>	<ul> <li>Supports IEEE / Precision Time Protocol (PTP) time synchronization</li> </ul>
enabled	<ul> <li>Local, RADIUS, and TACACS+ support (members and groups)</li> </ul>
<ul> <li>Reporting, blocking, or fail-safe bypass operation</li> </ul>	Granular access control features
Always-on ATI cloud security service	<ul> <li>Event monitoring and logging</li> </ul>
Heat/power dissipation for module at 100%	Syslog
traffic load: 660W / 2252 BTU/hour	<ul> <li>IT Automation control with RESTful API</li> </ul>
PHYSICAL	SPECIFICATIONS
<ul> <li>Ixia Vision ONE Size, Weight and Compliance</li> <li>1RU high 19" rack-mountable chassis</li> <li>Dimensions: 17.5W x 29.5L x 1.75H (inches) / 44.5W x 75.0L x 4.5H (cm)</li> <li>Weight: 36.4lb / 16.5kg</li> <li>ROHS</li> <li>IEC-60950-1:2005, UL60950-1, and CSA C22.2 No. 60950-1, EN 60950-1, CE, FCC, AS/NZS CISPR 22 &amp; 24, 55022, 55024, IEC-003</li> </ul>	<ul> <li>Power for Ixia Vision ONE (AC)</li> <li>Dual AC power supplies</li> <li>Hot Swappable</li> <li>Nom. current: 6.6A@100VAC, 2.75A@240VAC</li> <li>Max. operating input current: 7.7A@100VAC</li> <li>Max. operating input current: 3.2A@240VAC</li> <li>Power for Ixia Vision ONE (DC)</li> <li>Dual AC power supplies</li> <li>Hot Swappable</li> <li>Operating input voltage: 40 to 60VDC</li> <li>Nom. current: 12.5A @ 53VDC</li> <li>Max. operating input current: 19.25A @ 40VDC</li> </ul>
OPERATING	SPECIFICATIONS
Temperature	Humidity
<ul> <li>Operating: 5°C to 40°C</li> </ul>	<ul> <li>Operating: 5% to 85% (non-condensing)</li> </ul>
<ul> <li>Short-term*: -5°C to 55°C (*not to exceed 96 consecutive hours)</li> </ul>	<ul> <li>Short-term*: 5% to 90% (non-condensing, *not to exceed 96 hours)</li> </ul>
<ul> <li>Short-term* with fan failure: -5°C to 40°C (*not to exceed 96 consecutive hours)</li> </ul>	

# ORDERING INFORMATION

#### Solution Ordering Information

Solutions include Ixia Vision ONE hardware with 48 physical SFP/SFP+ ports and 4 QSFP+ ports. Transceivers are not included. Compatible transceivers are available and may be purchased from Ixia. All solutions are configured with dual power supplies. Additional licenses may be added to a system to enable additional ports, Advanced Packet Processing, or Application and Threat Intelligence.

IXIA VISION ONE BASE UNITS	NUMBER OF PHYSICAL PORTS		LICENSED PORTS		
SOLUTION PART NUMBER	1/10G HW PORTS INCLUDED	40G HW PORTS INCLUDED	PORTS LICENSED FOR 1G USE	PORTS LICENSED FOR 10G USE	PORTS LICENSED FOR 40G USE
SYS-V116PX8PGAC	48	4	8	16	0
SYS-V116PX8PGDC	48	4	8	16	0
SYS-V14PX16PGAC	48	4	16	4	0

#### License Ordering Information

Software licenses can be added to any of the Ixia Vision ONE hardware components or solutions. A fully licensed chassis supports 48 ports of 1G/10G, 4 ports of 40G, 160Gbps of PacketStack (AFM) and AppStack (ATIP).

IXIA VISION ONE PORT LICENSES				
HARDWARE COMPONENT DESCRIPTION PART NUMBER				
LIC-V1-8PX-U	Ixia Vision ONE License for upgrading (8) SFP/SFP+ ports from 1G operation to 1/10G speeds. (993-0088)			
LIC-V1-24PX	Ixia Vision ONE port license - 10G SFP+ ports QTY (24) (993-0089)			
LIC-V1-8PX	Ixia Vision ONE port license - 10G SFP+ ports QTY (8) (993-1112)			
LIC-V1-4PX	Ixia Vision ONE port license - 10G SFP+ ports QTY (4) (993-0096)			
LIC-V1-24PG	Ixia Vision ONE port license - 1G SFP+ ports QTY (24) (993-1113)			
LIC-V1-4P4X	Ixia Vision ONE port license - 40G QSFP+ ports QTY (4) (993- 0091)			

IXIA VISION ONE PACKETSTACK (AFM) THROUGHPUT LICENSES			
HARDWARE COMPONENT PART NUMBER	DESCRIPTION		
LIC-V1-PS8X	Ixia Vision ONE - PacketStack (AFM) capability license - 80Gbps - QTY (1) (993-0092)		
LIC-V1-PS4X-F	Ixia Vision ONE PacketStack (AFM) full license - to enable 40Gbps of functionality - QTY (1) (993-0099)		
LIC-V1-PSX-E	Ixia Vision ONE PacketStack (AFM) entry license - to enable 10Gbps of functionality - QTY (1) (993-0098)		
LIC-V1-PS4X-U	Ixia Vision ONE -PacketStack (AFM) upgrade license, from entry level 10Gbps to full 40Gbps of processing - QTY (1) (993-0103)		

IXIA VISION ONE PACKETSTACK (AFM) CAPABILITY LICENSES			
COMPONENT PART NUMBER DESCRIPTION			
LIC-V1-TUNL	Ixia Vision ONE - PacketStack - GRE Tunneling license - QTY (1) (993-0105)		
LIC-V1-STRP	Ixia Vision ONE - PacketStack - Header stripping feature license - QTY (1) (993-0106)		
LIC-V1-DDUP	Ixia Vision ONE - PacketStack - de-duplication feature license - QTY (1) (993-0107)		
LIC-V1-TMSP	Ixia Vision ONE - PacketStack - Timestamping feature license - QTY (1) (993-0108)		

IXIA VISION ONE APPSTACK (ATIP) HARDWARE ENABLEMENT LICENSES			
COMPONENT PART NUMBER	DESCRIPTION		
SUB-V1-SSAS	Ixia Vision ONE subscription of one-year SecureStack (Passive SSL Decryption) and AppStack (ATIP) license. Includes Passive SSL Decryption and all AppStack features, including the ATI Subscription. (993-0113)		
LIC-V1-SSAS-E	Ixia Vision ONE hardware enablement license for SecureStack (Passive SSL Decryption) and AppStack (ATIP) at entry-level performance - QTY (1) (993-0101)		

LIC-V1-SSAS-F	Ixia Vision ONE hardware enablement license for SecureStack (Passive SSL Decryption) and AppStack (ATIP) at full performance - QTY (1) (993-0102)
LIC-V1-SSAS-U	Ixia Vision ONE hardware enablement upgrade license to enable SecureStack (Passive SSL Decryption) and AppStack (ATIP) capabilities (from entry-level to full performance) - QTY (1). Requires additional licenses for features. (993-0104)

IXIA VISION ONE APPSTACK (ATIP) LICENSES			
COMPONENT PART NUMBER	Description		
LIC-V1-PSSL	Ixia Vision ONE SecureStack - Passive SSL Decryption feature license - QTY (1) (993- 0110)		
909-5018	Ixia renewal subscription of one-year of SecureStack (Passive SSL Decryption) and AppStack (ATIP) license for Vision ONE and Vision 7300. Includes SSL Decryption and all AppStack features, including the ATI Subscription. (909-5018)		
SUB-V1-APTL	Ixia Vision ONE AppStack (ATIP) one-year subscription license. Includes Application Identification & Filtering, Geolocation & tagging, Application and Threat Intelligence (ATI) data feed - QTY (1) (993-0112)		
909-5019	Ixia Vision ONE AppStack (ATIP) renewal license for SUB-V1- APTL. Includes Application Identification & Filtering, Geolocation & tagging, Application and Threat Intelligence (ATI) data feed - QTY (1) (909-5019)		
LIC-V1-NTFL	Ixia Vision ONE PacketStack - NetFlow feature license - QTY (1) (993-0109)		

IXIA VISION ONE ACTIVE SSL HARDWARE/LICENSE UPGRADE BUNDLES FOR
INSTALLATION INTO EXISTING VISION ONE CHASSIS

BUNDLE PART NUMBER	DESCRIPTION
MV1-ASSL-1G	Ixia Visibility Application Module bundled with Secure Stack - Active SSL license included - 1Gbps (992-0087)
MV1-ASSL-2G	Ixia Visibility Application Module bundled with Secure Stack - Active SSL license included - 2Gbps (992-0088)
MV1-ASSL-4G	Ixia Visibility Application Module bundled with Secure Stack - Active SSL license included - 4Gbps (992-0089)
MV1-ASSL-10G	Ixia Visibility Application Module bundled with Secure Stack - Active SSL license included - 10Gbps (992-0086)
SUB-ASSL-HCS-1G	Ixia Host Categorization Service subscription for 1G SSL (993-0125)
SUB-ASSL-HCS-2G	Ixia Host Categorization Service subscription for 2G SSL (993-0126)
SUB-ASSL-HCS-4G	Ixia Host Categorization Service subscription for 4G SSL (993-0127)
SUB-ASSL-HCS-10G	Ixia Host Categorization Service subscription for 10G SSL (993-0128)

ONE PLUS /	ACTIVE SSL	CENSE BUNDLES

BUNDLE PART NUMBER	DESCRIPTION
BD-V1-ASSL-1G	Ixia Security Bundle includes: Vision ONE, with a license for 8x1G ports and the Inline feature, and Visibility Application Module bundled with Secure Stack - Active SSL license - 1Gbps (991-0192)
BD-V1-ASSL-2G	Ixia Security Bundle includes: Vision ONE, with a license for 8x1G ports and the Inline feature, and Visibility Application Module bundled with Secure Stack - Active SSL license - 2Gbps (991-0193)
BD-V1-ASSL-4G	Ixia Security Bundle includes: Vision ONE, with license for 4x10G and 8x1G ports and the Inline feature, and Visibility Application Module bundled with Secure Stack - Active SSL license - 4Gbps (991-0194)

BD-V1-ASSL-10G	Ixia Security Bundle includes: Vision ONE, with license for 4x10G and 8x1G ports and the Inline feature, and Visibility Application Module bundled with Secure Stack - Active SSL
	license - 10Gbps (991-0195)

IXIA VISION ONE PLUS ThreatARMOR PLUS ACTIVE SSL HARDWARE/LICENSE BUNDLES		
BUNDLE PART NUMBER	DESCRIPTION	
BD-V1TAMR-ASSL-1G	Ixia Security Power Bundle includes: ThreatARMOR, 1G Security Appliance and Vision ONE with 8x1G ports and the Inline feature licensed, and Visibility Application Module bundled with SecureStack - Active SSL license - 1Gbps (991- 0196)	
BD-V1TAMR-ASSL-2G	Ixia Security Power Bundle includes: ThreatARMOR, 1G Security Appliance and Vision ONE with 8x1G ports and the Inline feature licensed, and Visibility Application Module bundled with SecureStack - Active SSL license - 2Gbps (991- 0197)	

IXIA VISION ONE ADVANCED INLINE CAPABILITIES LICENSE	
HARDWARE COMPONENT PART NUMBER	DESCRIPTION
LIC-V1-INLN	Ixia Vision ONE series feature license - to enable inline functionality - QTY (1) (993-0094)

IXIA VISION MOBILESTACK LICENSE	
BUNDLE PART NUMBER	DESCRIPTION
MV1-MS-SRC	Ixia Visibility Application Module bundled with MobileStack; Includes SIP/RTP for VOIP / VoLTE license; Requires previous or adjunct purchase of Vision ONE system. One license per system. (992-0095)

# Additional Licenses Ordering Information

IXIA VISION ONE ACCESSORIES, AND SPARE LICENSES	
HARDWARE COMPONENT PART NUMBER	DESCRIPTION
SYS-V1-FAN-ASSY	Ixia Vision ONE System - Spare Fan assembly module. (991-2020)
SYS-V1-ACPS	Ixia Vision ONE System - Spare AC power module. (991- 3023)
SYS-V1-DCPS	Ixia Vision ONE System - Spare DC power module. (991- 3024)
LIC-V1-SPR	Ixia Vision ONE series - Cold spare system port license (993-0097)

# 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