

SecureStack

Visibility is Security

Problem

Networks have data that we need to secure and there are many things to do to achieve this security:

- Inspecting encrypted traffic
- Monitoring who is on the network and evaluating patterns
- Masking sensitive data

Each of these activities is important, but unfortunately, tends to come with a specialized appliance. Each of these appliances can cost thousands of dollars each creating a significant financial burden. Beyond that, learning and maintaining each of these appliances over-extends IT and security teams and prevents from focusing on real risks when they occur.

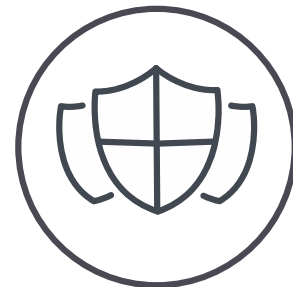
The modern organization needs a way to streamline how they secure their network. Simplifying the setup and management without compromising on security.

Solution

Keysight allows organizations to shed the burden of many appliances by offering SecureStack capabilities on its visibility platforms – network packet brokers and CloudLens. Organizations know that security is visibility – you have to see the data to be able to secure it and prevent attacks. With Keysight visibility you can decrypt and encrypt data, receive a threat insights feed about your network and have the ability to mask data on your network without specialized appliances. Saving your organization dollars, helping IT and security teams, and all while better protecting your network.



Highlights



- Streamline security by leveraging network packet brokers/visibility platform
- Greater visibility by decrypting traffic to detect malware, prevent data loss, monitor applications and more
- Offload the TLS/SSL decryption work and remove your network performance bottleneck
- Supports all leading ciphers
- Secure PII traversing the network, keeping your consumers and organization safe with data masking +
- Get Insight to potential threats on your network





SecureStack

Key Features






Feature	Function
 <p>Inline Decryption</p>	<p>Encrypted traffic has become a dual-edged sword. The same encryption we use to protect data has become the vehicle hackers manipulate to inject malware and other threats into a network. As most traffic becomes encrypted and with ephemeral key on its way to becoming the dominant technology, organizations need a way to retain the benefits of TLS 1.3 standards, while being able to inspect traffic for threats and malware to protect their networks and users.</p> <p>Fewer than 20% of firewalls, UTM and IPS deployments support decryption, and next generation firewalls can experience an average performance loss of 74% when using 512b and 1024b ciphers, and 81% when using 2048b ciphers.</p> <p>Keysight's Inline Decryption capability enables organizations to see inside traffic that uses ephemeral key cryptography through its visibility platform. With Keysight's Inline Decryption you can:</p> <ul style="list-style-type: none"> • Decrypt once and scale monitoring infrastructure. Offloading TLS/SSL decryption will optimize security and monitoring tool performance • Deploy inline, out-of-band (OOB), and simultaneous inline and OOB tool configurations for the ultimately flexibility • See into both outbound and inbound traffic to inspect downloads and detect server attacks • Achieve limitless visibility when used with Keysight's NetStack, PacketStack and AppStack capabilities <p>Inline Decryption is available via high-performance application modules. Vision ONE utilizes the VAM and Vision X utilizes the AM</p> <ul style="list-style-type: none"> • Inline Decryption employs a dedicated cryptographic processor, to provide the best throughput integrated with a visibility solution • Throughput options include 1G, 2G, 4G or 10G (license per module) for the VAM and 25G (license per CPU) for the AM. Upgrades via licensing • Includes built-in policy management, URL categorization, and real-time insight through reporting • Supports all leading ciphers
 <p>Out-of-Band Decryption</p>	<ul style="list-style-type: none"> • Get visibility to encrypted sessions without compromising security with role-based access controls and bidirectional decryption capability • Handle 10 million concurrent sessions with up to 8 Gbps throughput within AppStack on the Vision ONE and Vision 7300 • Support encryption ciphers and key sizes: 3DES, RC4, AES, SHA1/521/384/256/224, MD5, ECC (Elliptic Curve), RSA and Diffie-Hellman Key Exchange • No impact on application identification and filtering performance • Can work simultaneously with NetFlow generation, data masking, PCAP, and application forwarding



Decryption Comparison		
	 Inline Decryption Decryption for ephemeral key cryptography	 Out-of-Band Decryption
SSL/TLS Versions	TLS1.0, TLS1.1, TLS1.2, TLS 1.3	SSL 3.0, TLS1.0, TLS1.1, TLS1.2
Asymmetric Key Exchange	RSA, ECDH, ECDHE, ECC	RSA and ECDH
Symmetric Keys	AES and 3DES	AES, 3DES, and RC4
Hashing Algorithms	SHA1, SHA256, SHA384	SHA and MD5
Maximum concurrent sessions	Over 200,000	Over 1,000,000
Private Key Storage	Encrypted and 'write only'	Encrypted and 'write only'


Feature	Function
 Threat Intelligence	<p>Today's organizations are under cyberattack. Malware can find its way into an organization in a multitude of ways including email, clicking on malicious links, mobile devices, USBs used by employees, as well as physical intrusions into a network. Cyber Security Ventures reported that ransomware will attack a business every 14 seconds by the end of 2019.</p> <p>With Keysight's threat intelligence feature, you will be able to:</p> <ul style="list-style-type: none"> • Recognize malware, botnet, exploits, hijacked IPs and phishing activity with your Vision ONE, Vision X, Vision 7300, or CloudLens • Send threat information automatically via NetFlow to existing security appliances <p>Threat intelligence from Keysight's Application and Threat Intelligence (ATI) Research Center, also used in Keysight's ThreatARMOR, provide what you need to secure your network without requiring any additional threat intelligence feed. You can ensure the security of your network by easily:</p> <ul style="list-style-type: none"> • Detecting IoT attacks • Tagging suspicious or rogue applications and monitoring them for unusual activity • Tracking traffic to or from unauthorized geographies • Tracking questionable file transfers and brute-force attacks
 Data Masking Plus	<p>Achieve Payment Card Industry Data Security Standard (PCI-DSS), HIPAA and other regulatory compliance by leveraging pre-defined data patterns. With personally identifiable information traversing the network, security is key to keeping your consumers and your organization safe.</p> <ul style="list-style-type: none"> • Can work simultaneously with NetFlow generation, data masking, PCAP, and application forwarding • Pre-defined patterns to mask – including major credit card, SSN and email addresses • Reduce false positives with the built-in credit card number validation using the Luhn algorithm • Data masking at the packet level using a user configurable offset with any number of bytes • Target field identified by user-defined regular expression







Availability and Ordering Information

SecureStack is available on the Vision ONE, Vision X, TradeVision, Vision 7300, and CloudLens.

	Vision 7300	CloudLens
	Keysight's highest capacity network packet broker	Keysight's platform for public, private and hybrid cloud visibility
Baseline Platform Requirements	<p>Chassis</p> <ul style="list-style-type: none"> • SYS7300-STD • SYS7303-STD <p>Module</p> <ul style="list-style-type: none"> • M7300-SSAS-48PX: Keysight Vision 7300 family - module to deliver AppStack (ATIP) and SecureStack (SSL) capabilities - with 48 SFP+ ports (992-0050) 	<p>Virtual Tapping (options)</p> <ul style="list-style-type: none"> • LIC-CL-VTAP-10 • LIC-CL-VTAP-50 • LIC-CL-VTAP-100 • LIC-CLVTAP-250 • LIC-CL-VTAP-1000 • SUB-CL-VTAP-1000 • SUB-CL-VTAP-CSMP • SUB-CL-VTAP-AG100 • SUB-CL-VTAP-AG250 • SUB-CL-VTAP-AG1000
 Inline Decryption	N/A	N/A
 Threat Intelligence	<p>Full Subscription</p> <ul style="list-style-type: none"> • SUB-7300-SSAS: Keysight Vision 7300 one-year subscription of SecureStack and AppStack license for M7300-SSAS-48PX. Includes Out-of-Band Decryption and all AppStack features, including the ATI Subscription. QTY (1) per line card (993-0140) <p>Perpetual</p> <ul style="list-style-type: none"> • LICS-7300-SSAS-F: Keysight Vision 7300, License for AppStack dashboard at full performance - QTY (1) per line card (993-0141) • LIC-7300-APPS: Keysight Vision 7300, AppStack Add-on perpetual license for App Filtering, NetFlow, IxFlow, Masking, Regex and Out-of-Band Decryption. QTY (1) per line card (993-0140) 	<p>Subscription (no Decryption)</p> <ul style="list-style-type: none"> • SUB-CL-AS-1-F: Keysight CloudLens Private with AppStack (ATIP). Full Feature pack, first year subscription, 1 instance (954-4064) <p>Perpetual</p> <ul style="list-style-type: none"> • LIC-CL-AS-1-F: Keysight CloudLens Private with AppStack (ATIP). Full Feature pack, perpetual license, 1 instance (954-4065)
 Out-of-Band Decryption		
 Data Masking Plus		
 + All AppStack Features		











	Vision 7300	CloudLens
 <p>Threat Intelligence</p>	<ul style="list-style-type: none"> • SUB-7300-APTL: Keysight Vision 7300 AppStack, first year subscription license, required per line card. Includes Application signature updates and threat intelligence feature and updates. QTY (1) (993-0077) 	
 <p>+ Application Identification (AppStack)</p>		

	Vision ONE	Vision X
	Keysight's turnkey network packet broker	Keysight's highest capacity network packet broker
Baseline Platform Requirements	<p>Chassis (options)</p> <ul style="list-style-type: none"> • SYS-V1-48PX-AC • SYS-V1-48PX-DC • SYS-V116PX8PGAC • SYS-V116PX8PGDC • SYS-V14PX16PGAC 	<p>Chassis</p> <ul style="list-style-type: none"> • SYSVX-BASE-AC • SYSVX-BASE-DC
 <p>Inline Decryption</p>	<p>Module and License Bundles</p> <ul style="list-style-type: none"> • MV1-ASSL-1G: Keysight Visibility Application Module bundled with Secure Stack - Active SSL license included – 1 Gbps (992-0087) • MV1-ASSL-2G: Keysight Visibility Application Module bundled with Secure Stack - Active SSL license included – 2 Gbps (992-0088) • MV1-ASSL-4G: Keysight Visibility Application Module bundled with Secure Stack - Active SSL license included – 4 Gbps (992-0089) • MV1-ASSL-10G: Keysight Visibility Application Module bundled with Secure Stack - Active SSL license included – 10 Gbps (992-0086) • Host Categorization Service one year subscription per speed. <ul style="list-style-type: none"> ◦ SUB-ASSL-HCS-1G ◦ SUB-ASSL-HCS-2G ◦ SUB-ASSL-HCS-4G ◦ SUB-ASSL-HCS-10G 	<p>Module and Licenses</p> <ul style="list-style-type: none"> • MVX-AM4PC: Keysight VisionX, Application Module, (4) port 100G front panel ports. Two (2) processors, each capable of running an independent supported application. • LIC-VX-ASSL: Keysight Vision X, Inline Decryption perpetual features. Licensed for one (1) CPU on MVX-AM4PC module. Max (2) per module • SUB-VX-ASSL-HCS: Keysight Vision X, Host Categorization Service subscription. Licensed for one (1) CPU on MVX-AM4PC module. Max (2) per module. Licensed for one year. • SUB-VX-ASSL: Keysight Vision X, one (1) year Inline Decryption and Host Categorization Service subscription. Licensed for one (1) CPU on MVX-AM4PC module, max (2) per module


















	Vision ONE	Vision X
 Threat Insight  Out-of-Band Decryption  Data Masking Plus  + All AppStack Features	<p>Subscription</p> <ul style="list-style-type: none"> • SUB-V1-SSAS: Keysight Vision ONE subscription of one-year SecureStack and AppStack license. Includes Out-of-Band Decryption and all AppStack features, including the ATI Subscription <p>Perpetual</p> <ul style="list-style-type: none"> • LIC-V1-SSAS-E: Keysight Vision ONE hardware enablement license for SecureStack and AppStack at entry-level performance. Entry level network performance with 10 Gbps max throughput • LIC-V1-SSAS-F: Keysight Vision ONE hardware enablement license for SecureStack and AppStack at full performance. Full level network performance with 30 Gbps max throughput • LIC-V1-SSAS-U: Keysight Vision ONE hardware enablement upgrade license to enable SecureStack and AppStack capabilities (from entry-level to full performance) • LIC-V1-APPS: Keysight Vision ONE AppStack add-on perpetual license for App Filtering, Netflow, IxFlow, Masking, Regex, and Out-of-Band Decryption. Requires one of the AppStack core licenses LIC-V1-SSAS-E or LIC-V1-SSAS-F 	<p>Subscription</p> <ul style="list-style-type: none"> • SUB-VX-SSAS: Keysight Vision X one (1) year AppStack feature subscription. Licensed for one (1) CPU on MVX-AM4PC module, max (2) per module. The license includes all AppStack features, including application signature and threat intelligence updates. <p>Perpetual</p> <ul style="list-style-type: none"> • LIC-VX-SSAS: Keysight Vision X, AppStack perpetual feature. Licensed for one (1) CPU on MVX-AM4PC module, max (2) per module. The license includes all AppStack features, excluding application signature and threat intelligence updates.
 Threat Intelligence  + Application Identification (AppStack)	<ul style="list-style-type: none"> • SUB-V1-APTL: Keysight Vision ONE AppStack one-year subscription license. Includes application signature and threat intelligence updates - QTY (1) 	<ul style="list-style-type: none"> • SUB-VX-APTL: Keysight Vision X AppStack, first year subscription license, required per line card. Includes Application signature updates and threat intelligence feature and updates. QTY (1) per system

	Vision ONE	Vision X
Bundles: System + Licenses	<ul style="list-style-type: none"> • SYS-V14PX16PGAC • SYSV1FC8PX4P4XAC 	
Security Bundles	<ul style="list-style-type: none"> • BD-V1-ASSL-1G • BD-V1-ASSL-2G • BD-V1-ASSL-4G • BD-V1-ASSL-10G • BD-V1TAMR-ASSL-1G • BD-V1TAMR-ASSL-2G 	













Vision X

Features	Perpetual	Subscription
All AppStack related features	  LIC-VX-SSAS	  SUB-VX-SSAS
Application signature and threat intelligence updates	   	  SUB-VX-APTL

Vision 7300

Features	Perpetual	Subscription
Application signature updates and Threat insight feature and updates	  LIC-7300-APPS	  SUB-7300-APTL  SUB-7300-SSAS
App Filtering, NetFlow, IxFlow, Masking, Regex and Passive SSL	  LIC-7300-APPS   	  SUB-7300-SSAS   
Core – Full Performance	 LIC-V1-SSAS-F	 SUB-7300-SSAS

Vision One

Features	Perpetual	Subscription
Application Identification, Geolocation, Application-based filtering and IxFlow (with NetFlow License)	 LIC-V1-APPS	 SUB-V1-APTL 909-5019  SUB-V1-SSAS 909-5018
NetFlow Generation (Includes IxFlow if App Intelligence is licensed)	 LIC-V1-APPS	 SUB-V1-SSAS 909-5018
RegEx filtering and Data Masking	 LIC-V1-APPS	 SUB-V1-SSAS
Passive SSL decryption	 LIC-V1-APPS	 SUB-V1-SSAS 909-5018
Core – Performance	 LIC-V1-SSAS-E ¹  LIC-V1-SSAS-F ¹	 SUB-V1-SSAS

1. LIC-V1-SSAS-E can be upgraded to LIC-V1-SSAS-F by using LIC-V1-SSAS-U.

Specifications for M7300-SSAS-48PX

General specifications	
<p>Performance</p> <ul style="list-style-type: none"> All ports are bidirectional and fully non-blocking Full line-rate across all ports with filtering enabled 	<p>Management</p> <ul style="list-style-type: none"> SNMP v1, v2, v3 support Local, RADIUS, and TACACS+ support (members and groups) Granular access control features Event monitoring and logging Syslog IT Automation control with web-based API
Physical specifications	
<ul style="list-style-type: none"> 1U high interface card for 19" chassis Dimensions: 17.5 W x 15 L x 1.75 H (inches) Weight: 17.0 lb (7.7 kg) 	<ul style="list-style-type: none"> Operating input voltage: -40 to -60 VDC Nominal current: 4.15A @ -53 VDC, 220 W Maximum operating input current: 5.5 A @ 40 VDC, 220 W max Heat/power dissipation for module at 100% traffic load: maximum 220 sW / 751 BTU/hour
Operating specifications	
<p>Temperature</p> <ul style="list-style-type: none"> Operating: 5 °C to 40 °C Short-term*: -5 °C to 55 °C (*not to exceed 96 consecutive hours) Short-term* with fan failure: -5 °C to 40 °C (*not to exceed 96 consecutive hours) 	<p>Humidity</p> <ul style="list-style-type: none"> Operating: 5% to 85%, (non-condensing) Short-term*: 5% to 90% (non-condensing) (*not to exceed 96 hours)

Learn more at: www.keysight.com

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