intertek **OCUMEN** security

Acumen Security, LLC 2400 Research Blvd. Suite 395 Rockville, MD 20850 Tel. +1 703 375 9820 acumensecurity.net

11/06/2020

To Whom It May Concern,

Acumen Security verified that the following product faithfully embeds a FIPS 140-2 validated cryptographic module,

• Cisco IOS-XE Release 17.3

The software version is known to operate on the following platform(s):

- Cisco C8500 Series Edge Routers
- Cisco C8300 Series Edge Routers
- Cisco Aggregation Services Router (ASR) 1000 series.
- Cisco Integrated Services Router (ISR) 4000 series.
- Cisco Cloud Services Router (CSR) 1000v.
- Cisco Integrated Services Router (ISR) 1000 series.

During the review, Acumen Security confirmed that the following cryptographic module is properly incorporated into the product:

• IOS Common Cryptographic Module (IC2M) Rel5 – Cert #2388

Acumen Security confirmed that the following features leverage the embedded cryptographic module,

Feature	Cryptographic Service
IKE/IPsec	• Session establishment supporting each service,
SNMPv3	• All underlying cryptographic algorithms supporting
SSH	each services' key derivation functions,
	Hashing for each service,
TLS(HTTPS)	Symmetric encryption for each service.
Encrypted Passwords	Symmetric encryption
RADIUS	• Session establishment supporting each service,
TACACS	• All underlying cryptographic algorithms supporting
BGP	each services' key derivation functions,
IKE/IPsec	 Hashing for each service,
OSPF	
NTP	Symmetric encryption for each service. When
IS-IS	transmitted through an IKE/IPsec tunnel.

Details of the verification may be obtained from Cisco Systems, Inc. at the request of interested parties. This letter represents the independent opinions of Acumen Security and does not imply endorsement of the product by the CMVP or any other parties.

Sincerely,

Ashit Vora Laboratory Director

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11/6/2020

To Whom It May Concern,

Acumen Security verified that the following product faithfully embeds a FIPS 140-2 validated cryptographic module,

• Cisco IOS-XE SD-WAN Release 17.3

The software version is known to operate on the following platform(s):

- Cisco C8500 Series Edge Routers
- Cisco C8300 Series Edge Routers
- Cisco Aggregation Services Router (ASR) 1000 series.
- Cisco Integrated Services Router (ISR) 4000 series.
- Cisco Cloud Services Router (CSR) 1000v.
- Cisco Integrated Services Router (ISR) 1000 series.

During the review, Acumen Security confirmed that the following cryptographic module is properly incorporated into the product:

- IOS Common Cryptographic Module (IC2M) Rel5 Cert #2388
- Cisco FIPS Object Module (FOM) 7.0 Cert #3341

Acumen Security confirmed that the following features leverage the embedded cryptographic module,

Feature	Cryptographic Service
IKE/IPsec	• Session establishment supporting each service,
SNMPv3	All underlying cryptographic algorithms supporting
SSH	each services' key derivation functions,
TLS TLS(HTTPS)	Hashing for each service,
	• Symmetric encryption for each service.
Encrypted Passwords	Symmetric encryption
RADIUS	• Session establishment supporting each service,
TACACS	• All underlying cryptographic algorithms supporting
BGP	each services' key derivation functions,
IKE/IPsec	Hashing for each service,
OSPF	• Symmetric encryption for each service. When
NTP IS-IS	transmitted through an IKE/IPsec tunnel.
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