

# Supported SSL/TLS cipher suites

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The ExtraHop system can decrypt SSL/TLS traffic that has been encrypted with PFS or RSA cipher suites. All supported cipher suites can be decrypted by installing the session key forwarder on a server and configuring the ExtraHop system.

Cipher suites for RSA can also decrypt the traffic with a certificate and private key—with or without session key forwarding.

## Decryption methods

The table below provides a list of cipher suites that the ExtraHop system can [decrypt](#) along with the supported decryption options.

- **PFS + GPP:** the ExtraHop system can decrypt these cipher suites with session key forwarding and [global protocol to port mapping](#)
- **PFS + Cert:** the ExtraHop system can decrypt these cipher suites with session key forwarding and the [certificate and private key](#)
- **RSA + Cert:** the ExtraHop system can decrypt these cipher suites without session key forwarding as long as you have uploaded the [certificate and private key](#)

Hex Value	Name (IANA)	Name (OpenSSL)	Supported Decryption
0x04	TLS_RSA_WITH_RC4_128_MD5	RC4_128_MD5	PFS + GPP PFS + Cert RSA + Cert
0x05	TLS_RSA_WITH_RC4_128_SHA	RC4_128_SHA	PFS + GPP PFS + Cert RSA + Cert
0x0A	TLS_RSA_WITH_3DES_EDE_CBC_SHA	DES_ede3 CBC_SHA	PFS + GPP PFS + Cert RSA + Cert
0x16	TLS_DHE_RSA_WITH_3DES_EDE_CBC_SHA	DES_ede3 CBC_SHA	PFS + GPP PFS + Cert
0x2F	TLS_RSA_WITH_AES_128_CBC_SHA	AES_128_CBC_SHA	PFS + GPP PFS + Cert RSA + Cert
0x33	TLS_DHE_RSA_WITH_AES_128_CBC_SHA	AES_128_CBC_SHA	PFS + GPP PFS + Cert
0x35	TLS_RSA_WITH_AES_256_CBC_SHA	AES_256_CBC_SHA	PFS + GPP PFS + Cert RSA + Cert
0x39	TLS_DHE_RSA_WITH_AES_256_CBC_SHA	AES_256_CBC_SHA	PFS + GPP PFS + Cert
0x3C	TLS_RSA_WITH_AES_128_CBC_SHA256	AES_128_CBC_SHA256	PFS + GPP PFS + Cert RSA + Cert
0x3D	TLS_RSA_WITH_AES_256_CBC_SHA256	AES_256_CBC_SHA256	PFS + GPP PFS + Cert RSA + Cert
0x67	TLS_DHE_RSA_WITH_AES_128_CBC_SHA256	AES_128_CBC_SHA256	PFS + GPP PFS + Cert
0x6B	TLS_DHE_RSA_WITH_AES_256_CBC_SHA256	AES_256_CBC_SHA256	PFS + GPP PFS + Cert
0x9C	TLS_RSA_WITH_AES_128_GCM_SHA256	AES_128_GCM_SHA256	PFS + GPP PFS + Cert RSA + Cert

Hex Value	Name (IANA)	Name (OpenSSL)	Supported Decryption
0x9D	TLS_RSA_WITH_AES_256_GCM_SHA384	AEAD_AES_256_GCM_SHA384	PFS + GPP PFS + Cert RSA + Cert
0x9E	TLS_DHE_RSA_WITH_AES_128_GCM_SHA256	DHE_RSA_AES_128_GCM_SHA256	PFS + GPP PFS + Cert
0x9F	TLS_DHE_RSA_WITH_AES_256_GCM_SHA384	DHE_RSA_AES_256_GCM_SHA384	PFS + GPP PFS + Cert
0x1301	TLS_AES_128_GCM_SHA256	TLS_AES_128_GCM_SHA256	PFS + GPP PFS + Cert
0x1302	TLS_AES_256_GCM_SHA384	TLS_AES_256_GCM_SHA384	PFS + GPP PFS + Cert
0x1303	TLS_CHACHA20_POLY1305_SHA256	TLS_CHACHA20_POLY1305_SHA256	PFS + GPP PFS + Cert
0xC007	TLS_ECDHE_ECDSA_WITH_RC4_128_SHA	ECDHE_ECDSA_RC4_128_SHA	PFS + GPP
0xC008	TLS_ECDHE_ECDSA_WITH_CBC3_SHA	ECDHE_ECDSA_CBC3_SHA	PFS + GPP
0xC009	TLS_ECDHE_ECDSA_WITH_CAC128_SHA	ECDHE_ECDSA_CAC128_SHA	PFS + GPP
0xC00A	TLS_ECDHE_ECDSA_WITH_CAC256_SHA	ECDHE_ECDSA_CAC256_SHA	PFS + GPP
0xC011	TLS_ECDHE_RSA_WITH_RC4_128_SHA	ECDHE_RSA_RC4_128_SHA	PFS + GPP PFS + Cert
0xC012	TLS_ECDHE_RSA_WITH_CBC3_SHA	ECDHE_RSA_CBC3_SHA	PFS + GPP PFS + Cert
0xC013	TLS_ECDHE_RSA_WITH_CAC128_SHA	ECDHE_RSA_CAC128_SHA	PFS + GPP PFS + Cert
0xC014	TLS_ECDHE_RSA_WITH_CAC256_SHA	ECDHE_RSA_CAC256_SHA	PFS + GPP PFS + Cert
0xC023	TLS_ECDHE_ECDSA_WITH_CAC256_SHA256	ECDHE_ECDSA_CAC256_SHA256	PFS + GPP
0xC024	TLS_ECDHE_ECDSA_WITH_CAC384_SHA384	ECDHE_ECDSA_CAC384_SHA384	PFS + GPP
0xC027	TLS_ECDHE_RSA_WITH_CAC256_SHA256	ECDHE_RSA_CAC256_SHA256	PFS + GPP PFS + Cert
0xC028	TLS_ECDHE_RSA_WITH_CAC384_SHA384	ECDHE_RSA_CAC384_SHA384	PFS + GPP PFS + Cert
0xC02B	TLS_ECDHE_ECDSA_WITH_CAC256_GCM_SHA256	ECDHE_ECDSA_CAC256_GCM_SHA256	PFS + GPP
0xC02C	TLS_ECDHE_ECDSA_WITH_CAC256_GCM_SHA384	ECDHE_ECDSA_CAC256_GCM_SHA384	PFS + GPP
0xC02F	TLS_ECDHE_RSA_WITH_CAC256_GCM_SHA256	ECDHE_RSA_CAC256_GCM_SHA256	PFS + GPP PFS + Cert
0xC030	TLS_ECDHE_RSA_WITH_CAC256_GCM_SHA384	ECDHE_RSA_CAC256_GCM_SHA384	PFS + GPP PFS + Cert

Hex Value	Name (IANA)	Name (OpenSSL)	Supported Decryption
0xCCA8	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256	ECDHE-RSA-CHACHA20-POLY1305	PSK + GPP PFS + Cert
0xCCA9	TLS_ECDHE_ECDSA_WITH_CHACHA20_POLY1305_SHA256	ECDHE-ECDSA-CHACHA20-POLY1305	PSK + GPP
0xCCAA	TLS_DHE_RSA_WITH_CHACHA20_POLY1305_SHA256	DHE-RSA-CHACHA20-POLY1305	PSK + GPP PFS + Cert