

Info exception

[https://blogs.oracle.com/java-platform-group/entry/diagnosing_tls_ssl_and_https\[BR\]](https://blogs.oracle.com/java-platform-group/entry/diagnosing_tls_ssl_and_https[BR])

<http://stackoverflow.com/questions/6383207/how-to-use-tls1-or-ssl3-for-first-handshakeclient-hello-in-java>

javax.net.ssl.SSLHandshakeException: Received fatal alert: handshake_failure

trigger seeding of [SecureRandom?](#) done seeding [SecureRandom?](#) Allow unsafe renegotiation: false Allow legacy hello messages: true Is initial handshake: true Is secure renegotiation: false %% No cached client session * [ClientHello?](#), TLSv1 [RandomCookie?](#): GMT: 1414437400 bytes = { 141, 161, 100, 14, 170, 248, 62, 119, 104, 169, 61, 146, 199, 29, 125, 247, 244, 123, 203, 164, 93, 238, 67, 227, 60, 154, 57, 233 } Session ID: {} Cipher Suites: [SSL_RSA_WITH_RC4_128_MD5, SSL_RSA_WITH_RC4_128_SHA, TLS_RSA_WITH_AES_128_CBC_SHA, TLS_RSA_WITH_AES_256_CBC_SHA, TLS_ECDH_ECDSA_WITH_RC4_128_SHA, TLS_ECDH_ECDSA_WITH_AES_128_CBC_SHA, TLS_ECDH_ECDSA_WITH_AES_256_CBC_SHA, TLS_ECDH_RSA_WITH_RC4_128_SHA, TLS_ECDH_RSA_WITH_AES_128_CBC_SHA, TLS_ECDH_RSA_WITH_AES_256_CBC_SHA, TLS_ECDHE_ECDSA_WITH_RC4_128_SHA, TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA, TLS_ECDHE_ECDSA_WITH_AES_256_CBC_SHA, TLS_ECDHE_RSA_WITH_RC4_128_SHA, TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA, TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA, TLS_DHE_RSA_WITH_AES_128_CBC_SHA, TLS_DHE_RSA_WITH_AES_256_CBC_SHA, TLS_DHE_DSS_WITH_AES_128_CBC_SHA, TLS_DHE_DSS_WITH_AES_256_CBC_SHA, SSL_RSA_WITH_3DES_EDE_CBC_SHA, TLS_ECDH_ECDSA_WITH_3DES_EDE_CBC_SHA, TLS_ECDH_RSA_WITH_3DES_EDE_CBC_SHA, TLS_ECDHE_ECDSA_WITH_3DES_EDE_CBC_SHA, TLS_ECDHE_RSA_WITH_3DES_EDE_CBC_SHA, SSL_DHE_RSA_WITH_3DES_EDE_CBC_SHA, SSL_DHE_DSS_WITH_3DES_EDE_CBC_SHA, SSL_RSA_WITH_DES_CBC_SHA, SSL_DHE_RSA_WITH_DES_CBC_SHA, SSL_DHE_DSS_WITH_DES_CBC_SHA, SSL_RSA_EXPORT_WITH_RC4_40_MD5, SSL_RSA_EXPORT_WITH_DES40_CBC_SHA, SSL_DHE_RSA_EXPORT_WITH_DES40_CBC_SHA, SSL_DHE_DSS_EXPORT_WITH_DES40_CBC_SHA, TLS_EMPTY_RENEGOTIATION_INFO_SCSV] Compression Methods: { 0 } Extension elliptic_curves, curve names: {secp256r1, sect163k1, sect163r2, secp192r1, secp224r1, sect233k1, sect233r1, sect283k1, sect283r1, secp384r1, sect409k1, sect409r1, secp521r1, sect571k1, sect571r1, secp160k1, secp160r1, secp160r2, sect163r1, secp192k1, sect193r1, sect193r2, secp224k1, sect239k1, secp256k1} Extension ec_point_formats, formats: [uncompressed] * [write] MD5 and SHA1 hashes: len = 177 0000: 01 00 00 AD 03 01 54 4F 9A 18 8D A1 64 0E AA F8TO....d... 0010: 3E 77 68 A9 3D 92 C7 1D 7D F7 F4 7B CB A4 5D EE >wh.=.....]. 0020: 43 E3 3C 9A 39 E9 00 00 46 00 04 00 05 00 2F 00 C.<.9...F...../. 0030: 35 C0 02 C0 04 C0 05 C0 0C C0 0E C0 0F C0 07 C0 5..... 0040: 09 C0 0A C0 11 C0 13 C0 14 00 33 00 39 00 32 003.9.2. 0050: 38 00 0A C0 03 C0 0D C0 08 C0 12 00 16 00 13 00 8..... 0060: 09 00 15 00 12 00 03 00 08 00 14 00 11 00 FF 01 0070: 00 00 3E 00 0A 00 34 00 32 00 17 00 01 00 03 00 ..>.4.2..... 0080: 13 00 15 00 06 00 07 00 09 00 0A 00 18 00 0B 00 0090: 0C 00 19 00 0D 00 0E 00 0F 00 10 00 11 00 02 00 00A0: 12 00 04 00 05 00 14 00 08 00 16 00 0B 00 02 01 00B0: 00 . main, WRITE: TLSv1 Handshake, length = 177 [write] MD5 and SHA1 hashes: len = 173 0000: 01 03 01 00 84 00 00 00 20 00 00 04 01 00 80 00 0010: 00 05 00 00 2F 00 00 35 00 C0 02 00 C0 04 01 00/.5..... 0020: 80 00 C0 05 00 C0 0C 00 C0 0E 00 C0 0F 00 C0 07 0030: 05 00 80 00 C0 09 06 00 40 00 C0 0A 07 00 C0 00@..... 0040: C0 11 00 C0 13 00 C0 14 00 00 33 00 00 39 00 003.9.. 0050: 32 00 00 38 00 00 0A 07 00 C0 00 C0 03 02 00 80 2..8..... 0060: 00 C0 0D 00 C0 08 00 C0 12 00 00 16 00 00 13 00 0070: 00 09 06 00 40 00 00 15 00 00 12 00 00 03 02 00@..... 0080: 80 00 00 08 00 00 14 00 00 11 00 00 FF 54 4F 9ATO. 0090: 18 8D A1 64 0E AA F8 3E 77 68 A9 3D 92 C7 1D 7D ...d...>wh.=.... 00A0: F7 F4 7B CB A4 5D EE 43 E3 3C 9A 39 E9].C.<.9. main, WRITE: SSLv2 client hello message, length = 173 [Raw write]: length = 175 0000: 80 AD 01 03 01 00 84 00 00 00 20 00 00 04 01 00 0010: 80 00 00 05 00 00 2F 00 00 35 00 C0 02 00 C0 04/.5..... 0020: 01 00 80 00 C0 05 00 C0 0C 00 C0 0E 00 C0 0F 00 0030: C0 07 05 00 80 00 C0 09 06 00 40 00 C0 0A 07 00@..... 0040: C0 00 C0 11 00 C0 13 00 C0 14 00 00 33 00 00 393.9 0050: 00 00 32 00 00 38 00 00 0A 07 00 C0 00 C0 03 02 ..2..8..... 0060: 00 80 00 C0 0D 00 C0 08 00 C0 12 00 00 16 00 00 0070: 13 00 00 09 06 00 40 00 00 15 00 00 12 00 00 03@..... 0080: 02 00 80 00 00 08 00 00 14 00 00 11 00 00 FF 54T 0090: 4F 9A 18 8D A1 64 0E AA F8 3E 77 68 A9 3D 92 C7 O...d...>wh.=.. 00A0: 1D 7D F7 F4 7B CB A4 5D EE 43 E3 3C 9A 39 E9].C.<.9. [Raw read]: length = 5 0000: 15 03 01 00 02 [Raw read]: length = 2 0000: 02 28 .(main, READ: TLSv1 Alert, length = 2 main, RECV TLSv1 ALERT: fatal, handshake_failure main, called closeSocket() main, handling exception: javax.net.ssl.SSLHandshakeException: Received fatal alert: handshake_failure

Avoid exception:

VM arguments

```
-Djavax.net.ssl.trustStore=/home/terryk/.esg/esg-truststore.ts -Djavax.net.ssl.trustStorePassword=changeit
-Djavax.net.debug=all -Dhttps.protocols="TLSv1,SSLv3"
```

Program arguments it

```
--oid userOpenIDURL -P password --output outputfil
```

Get property in code:

```
System.getProperty("https.protocols")
```

Set property in code:

```
System.setProperty("https.protocols", "TLSv1,SSLv3");
```

Produced by

modifications in /usr/local/tomcat/conf/server.xml

```
sslEnabledProtocols="TLSv1,TLSv1.1,TLSv1.2"  
instead of  
sslProtocol="TLS"
```